DOCUMENT RESUME

ED 086 516 SE 017 113

AUTHOR	Gring, Carolyn
TITLE	Micronesian Mathematics Program, Level 1, Children's Workbook.
INSTITUTION	Trust Territory of the Pacific Islands Dept. of Education, Saipan.
SPONS AGENCY	Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
PUB DATE	73
NOTE	91p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Basic Skills; Concept Formation; Diagrams; *Elementary School Mathematics; *Geometric Concepts; *Instructional Materials; *Number Concepts; Pattern Recognition; *Workbooks; Worksheets
IDENTIFIERS	Elementary Secondary Education Act Title III; ESEA Title III

ABSTRACT

This workbook for children was prepared especially to accompany the level 1 Micronesian Mathematics Program Teacher's Guide. It is to be used to check whether children have learned concepts taught by activities and activity cards. Work is provided for such concepts as color recognition, categorizing, counting, ordering, numeration, contrasting, shape and pattern recognition as well as other basic relationships such as "bigger or smaller than" or "the same size as." Most of the objects represented on the cards are appropriate for children living in a Polynesian culture, but recognizable by all children. This work was prepared under an ESEA Title III contract. (JP)

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MICRONESIAN MATHEMATICS PROGRAM

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Write your name in the boxes. Color the picture.

WORKBOOK 1

ED 086516

MICRONESIAN MATHEMATICS PROGRAM

LEVEL 1

CHILDREN'S WORKBOOK

Written by: Carolyn Gring
Education Specialist - Mathematics
Marshall Islands

Cartoon Style: Jim Conlon
Peace Corps Volunteer
Marshall Islands

Editor: Barry J. Blaby
Education Specialist - Mathematics
Trust Territory of the Pacific Islands

Illustrations by: Felipe Figueroa
H.Q. Education Office

PUBLISHED - 1973

"Produced by the Micronesian Mathematics Project, a project funded under Title III of the Elementary and Secondary Education Act, with funds granted by the U.S. Office of Education to the Trust Territory of the Pacific Islands, Department of Education. Opinions expressed herein are the author's (s'); no official endorsement by funding agencies should be inferred."

TO THE TEACHER:

This workbook for the children has been prepared especially to accompany the level I Micronesian Mathematics Program Teacher's Guide. The work cards are for use only with the structured games section.

For effective learning, please use the book in the following manner.

1. Do the activity cards from level I M.M.P. teacher guide first. Then do the appropriate work cards from the workbook. The workbook page is a way of checking or testing to see whether the children have learned the concept from the activity lesson.

2. Not every activity card in M.M.P. level one has a work card, since there might be 2 or 3 activity cards leading only to one concept. The children's workbook test concepts, not individual cards.

3. The children will probably not be able to read the instructions. You will have to read the instructions to them. Do not tell them the answers. You could get the children to write the English or vernacular directions on the cards for themselves.

4. At the back of the book there are some number skill pages. This section can be used at special times. You should check every page to see that the children write correctly. You might want to add more lessons of your own. These cards should be started about 2 weeks after the Structured games have begun.

5. Arrange for the children to take their workbooks home to show their parents what they are doing in mathematics.

6. If you find a page that cannot be taught because it has no meaning in your local language, teach the concept in English.

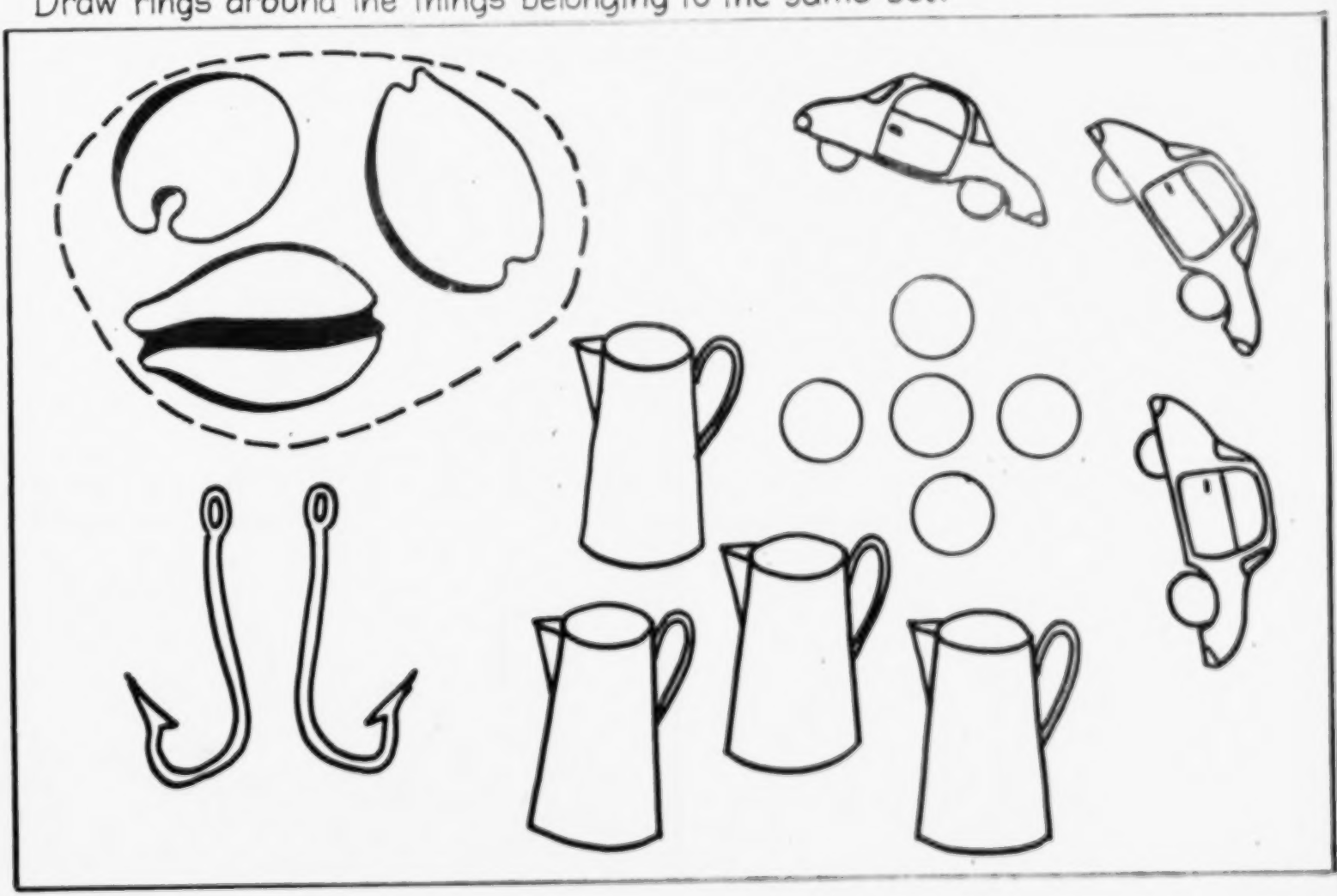
I hope that you and the children you teach will find this book worthwhile, useful and a lot fun.

Carolyn Gring

SETS OF LIKE KIND

To be used after completion of Cards **1, 2, 3**

Draw rings around the things belonging to the same set.



EQUIVALENT CLASSES To be used after completion of Cards 39 & 4

These are triangles.

Color the members of the same shape class.

Color these green.

Make these belong to the same color class.

These are large.

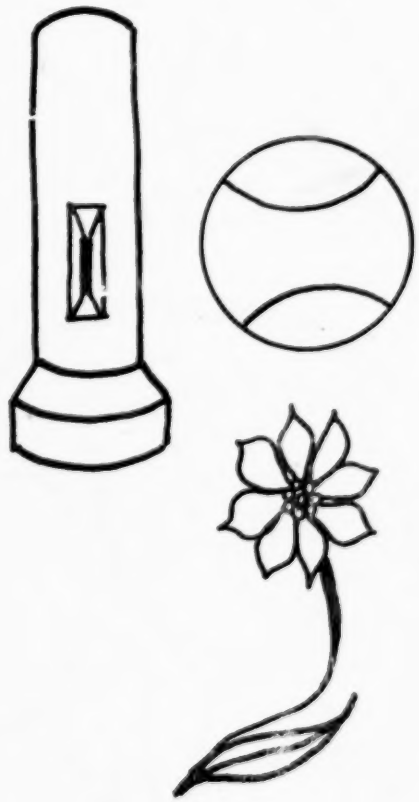
Color the shapes in the same size class.

These are thin.

Color the member of the same thickness class.

COLOR RECOGNITION

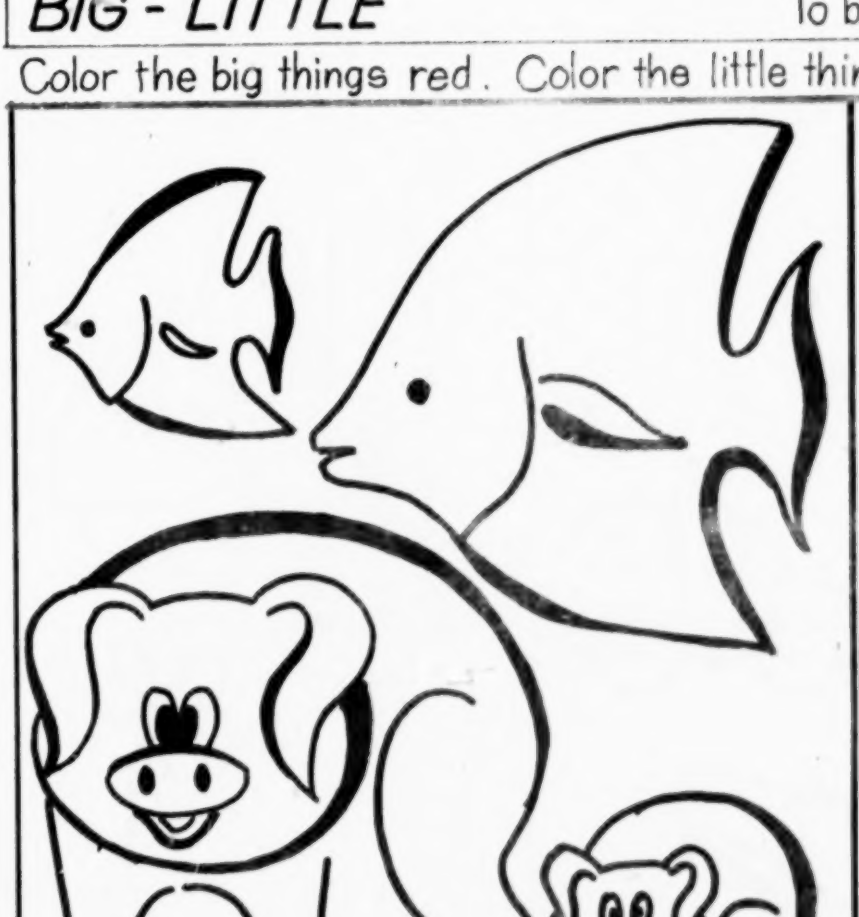
To be used after completion of Cards **5** and **6**

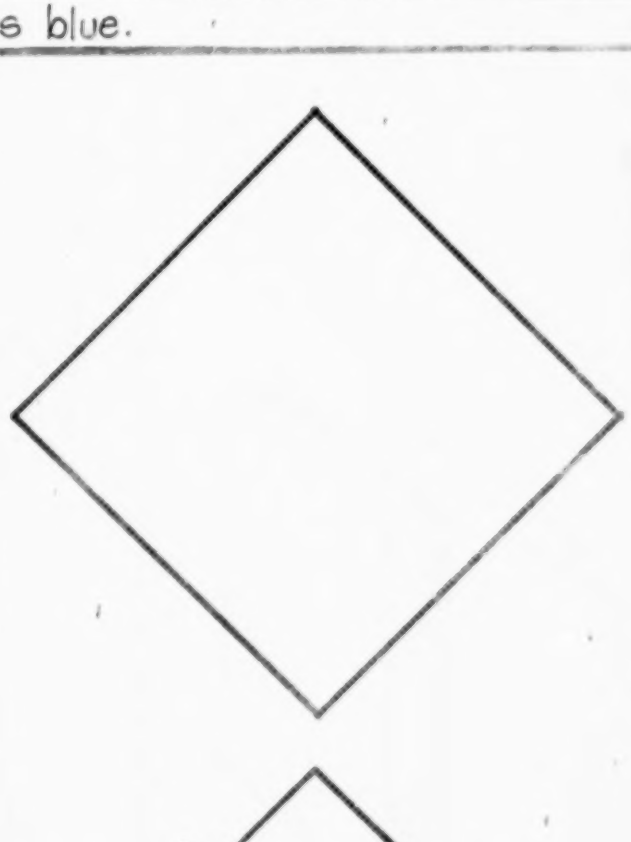
YELLOW	BLUE	RED
		
Color these yellow.	Color these blue.	Color these red.

BIG - LITTLE

To be used after completion of Card 7

Color the big things red. Color the little things blue.

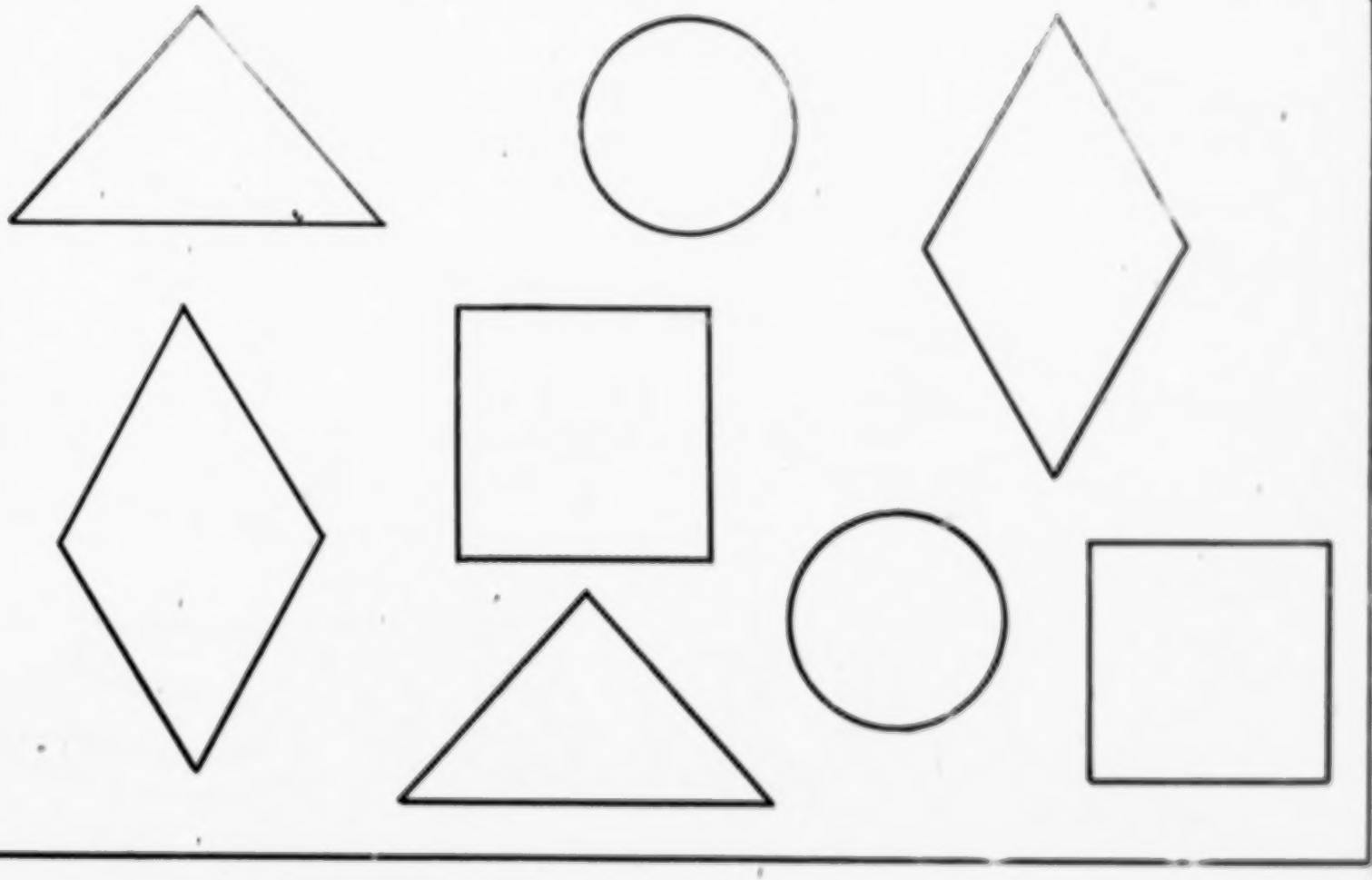




MATCHING SHAPES

To be used after completion of Card 10

Draw lines to the shapes that are alike. Color one kind of shape one color.



COLOR NAMES

To be used after completion of Cards 11 to 13A

Color these things green.

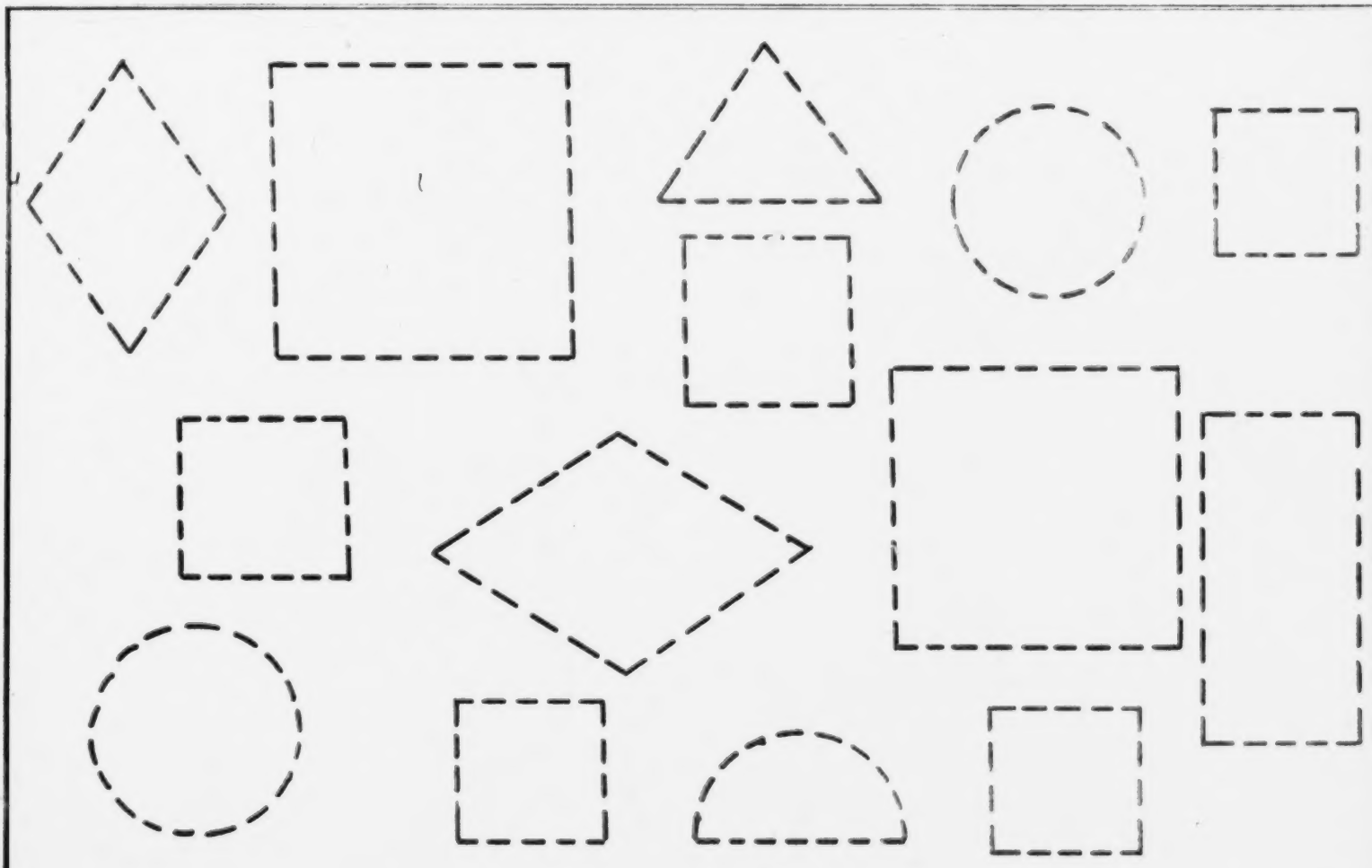
Color these things brown.

Color these things black.

SQUARES

To be used after completion of Card 14

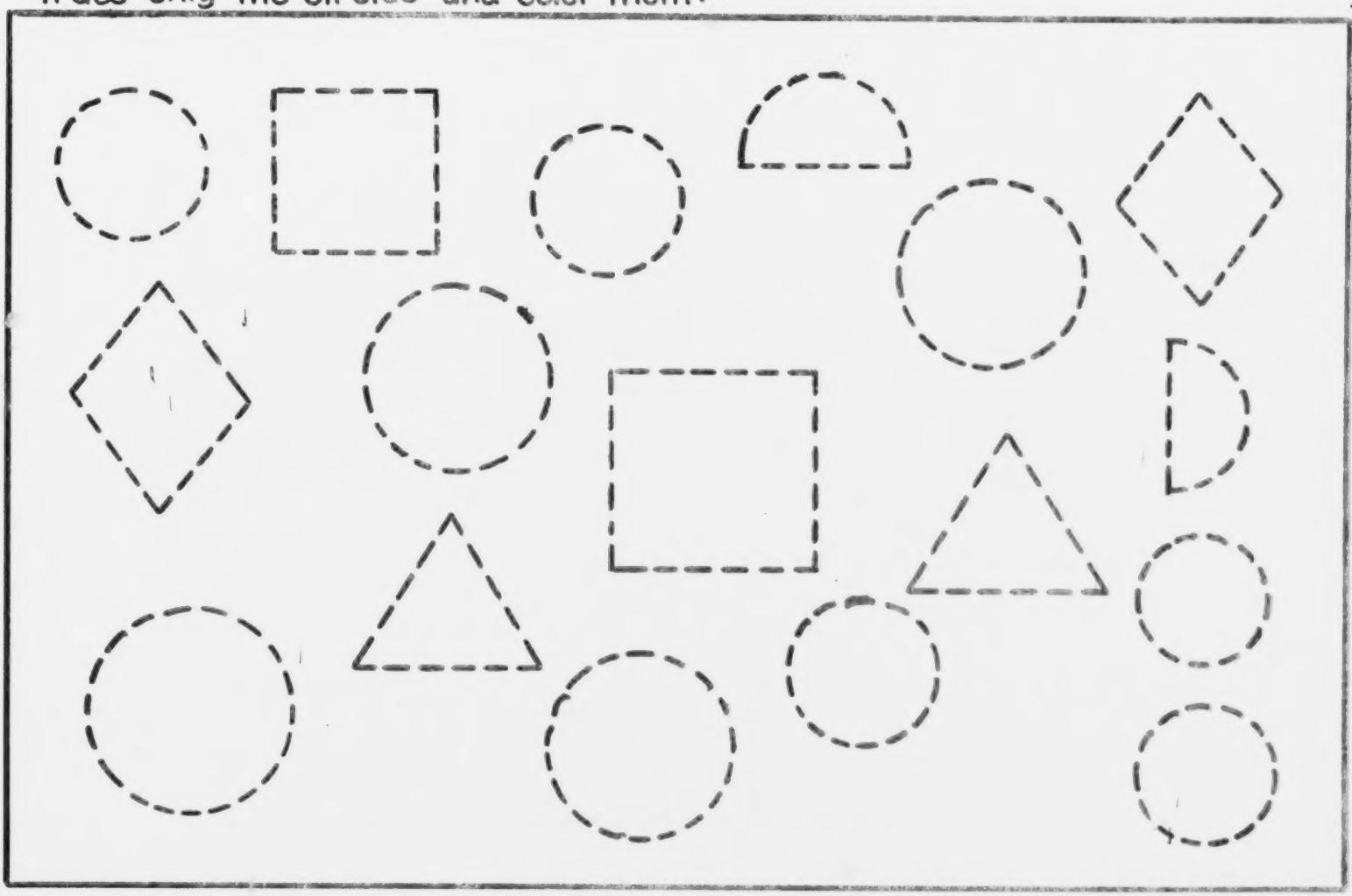
Trace around the squares only. Color them.



CIRCLE

To be used after completion of Card 15

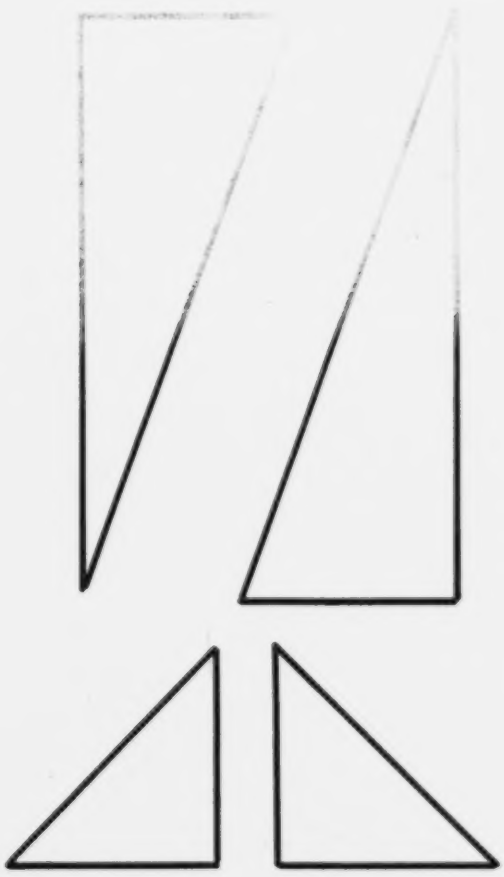
Trace only the circles and color them.



TANGRAMS

To be used after completion of Card 16

Cut out these shapes.



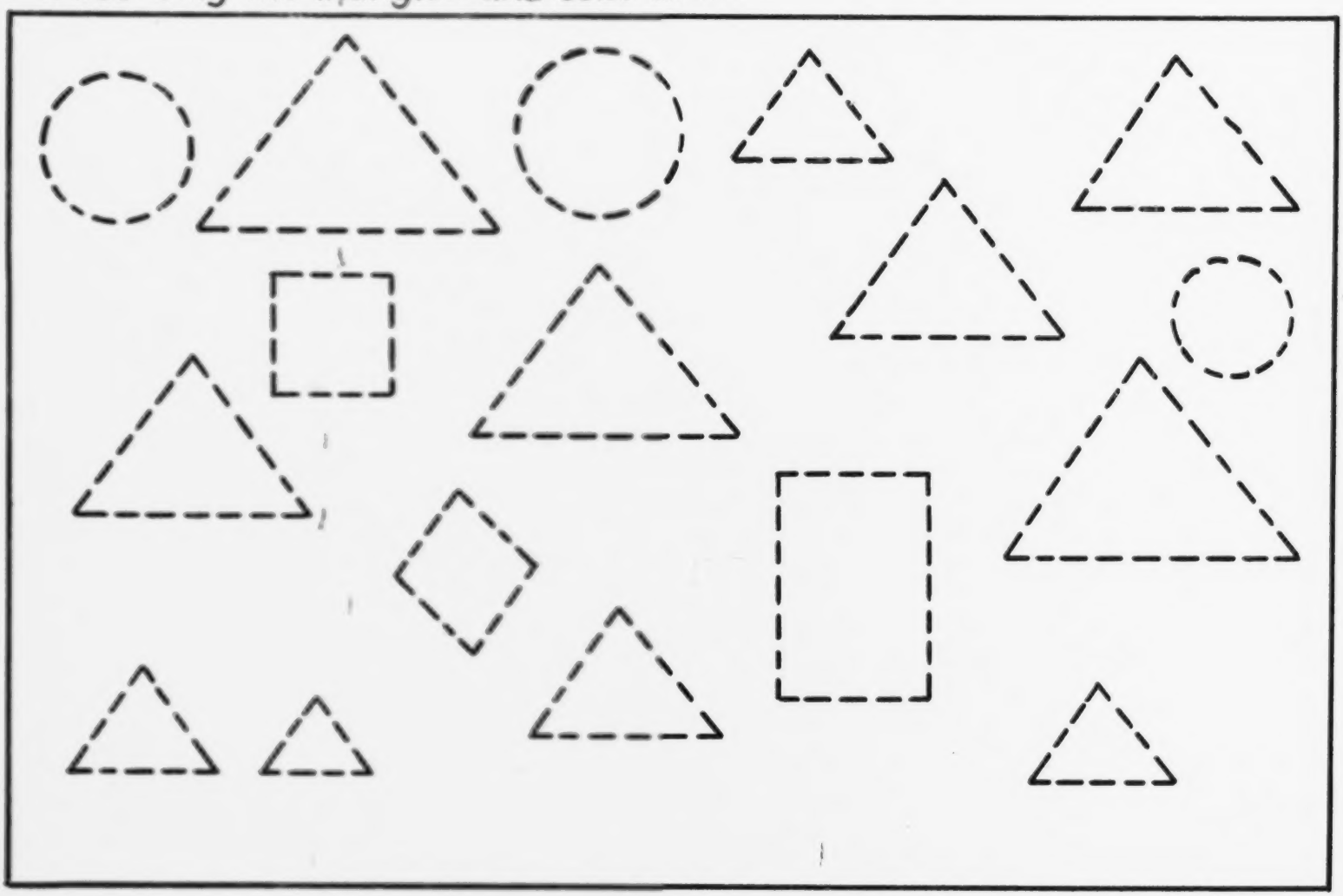
Arrange them to make this diamond.

Paste and color them.

TRIANGLES

To be used after completion of Card 17

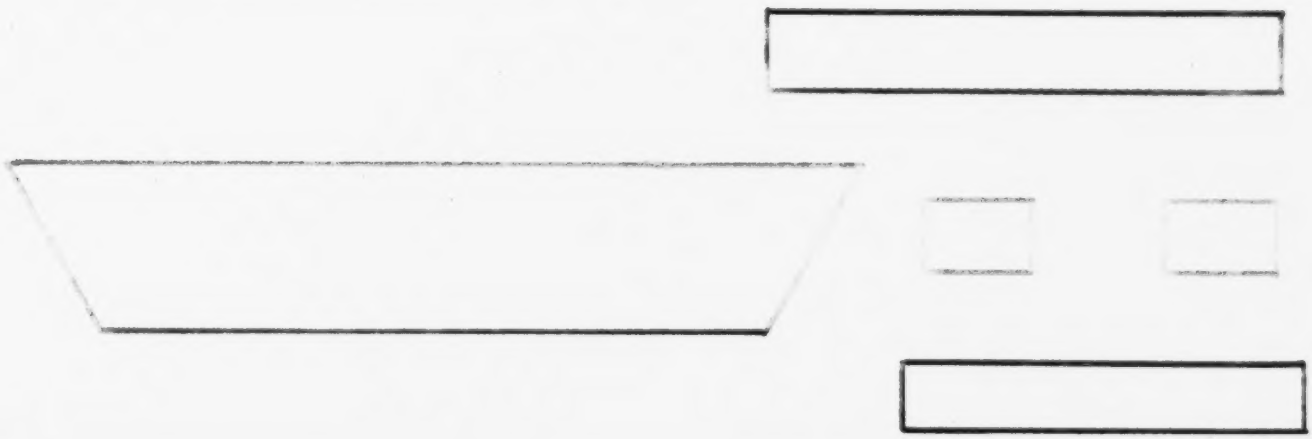
Trace only the trianglee and color them.



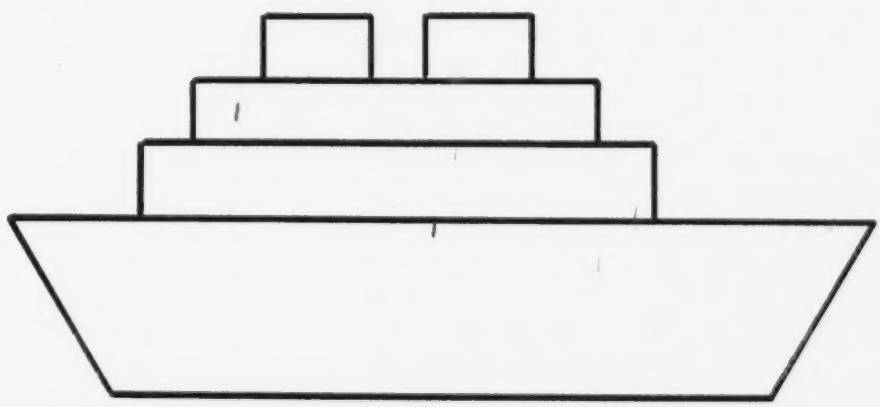
TANGRAMS

To be used after completion of Card 18

Cut out these shapes.



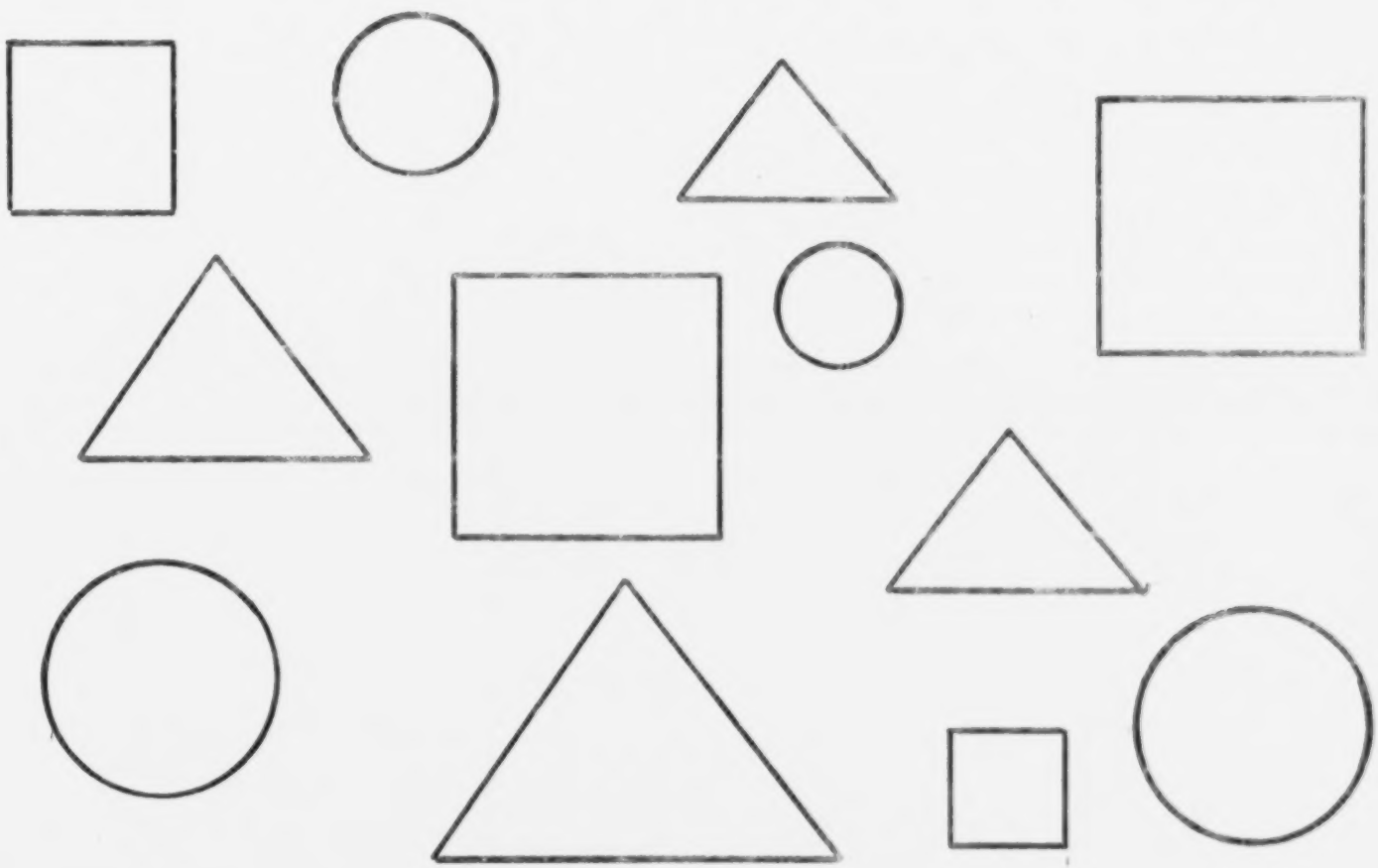
Arrange them to make this ship- paste and color them.



MATCHING SHAPES

To be used after completion of Card 19

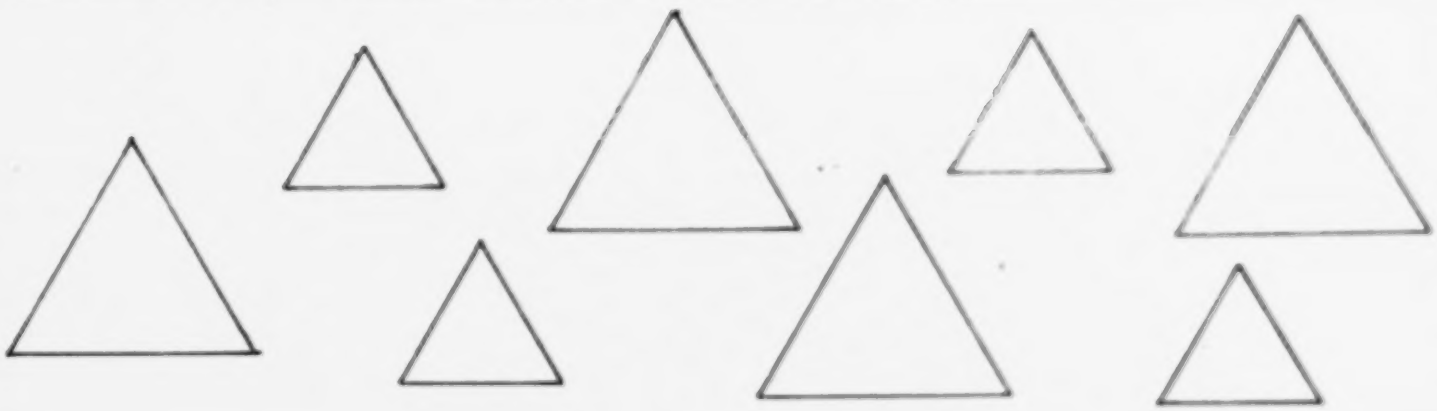
Color the circles green, squares blue, and triangles red.



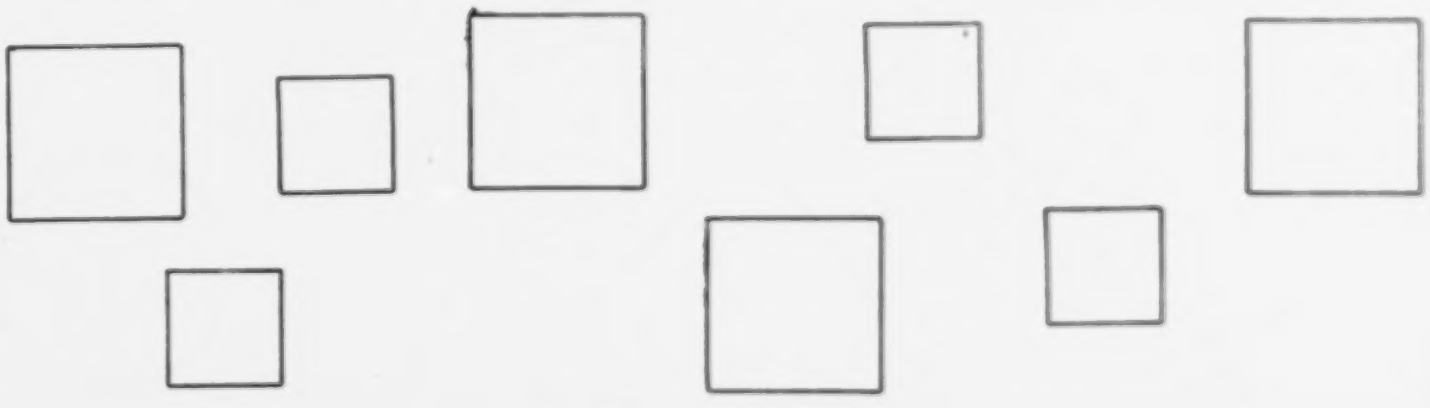
BIG LITTLE

to be used with Card No. 21

Color the big triangles red and the little triangles blue.



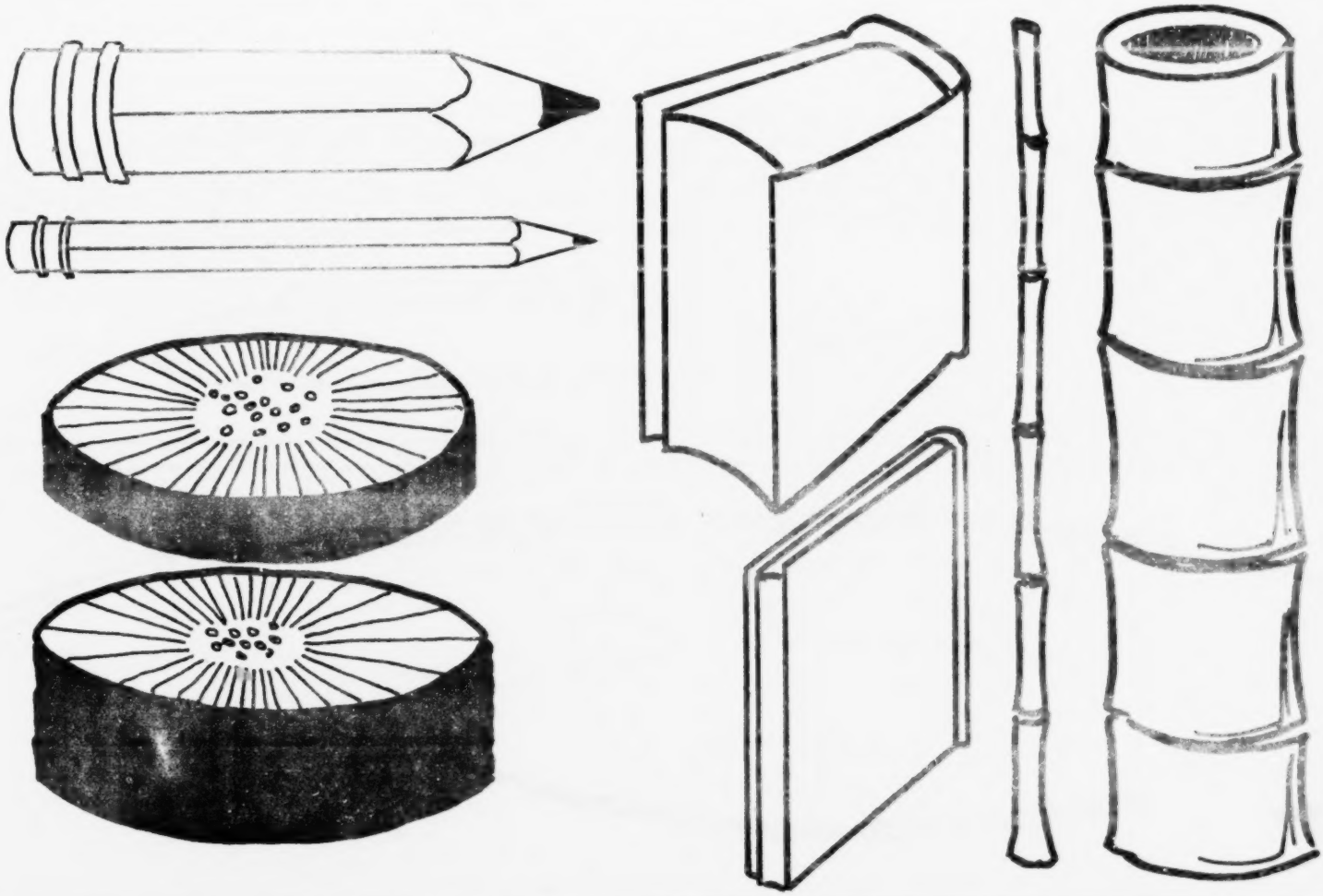
Color the big squares red and the little squares blue.



SORTING BY THICKNESS

To be used after completion of Card 22-23

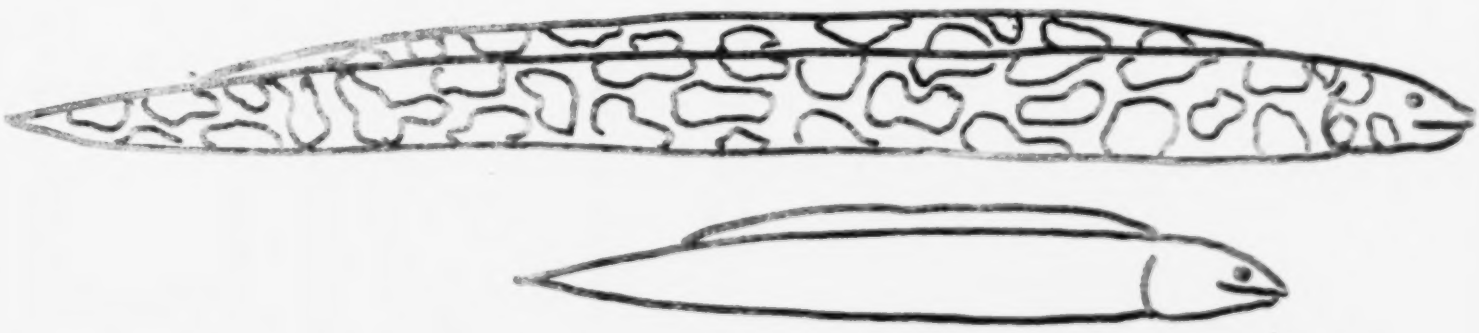
Color the thick things green and the thin things yellow.

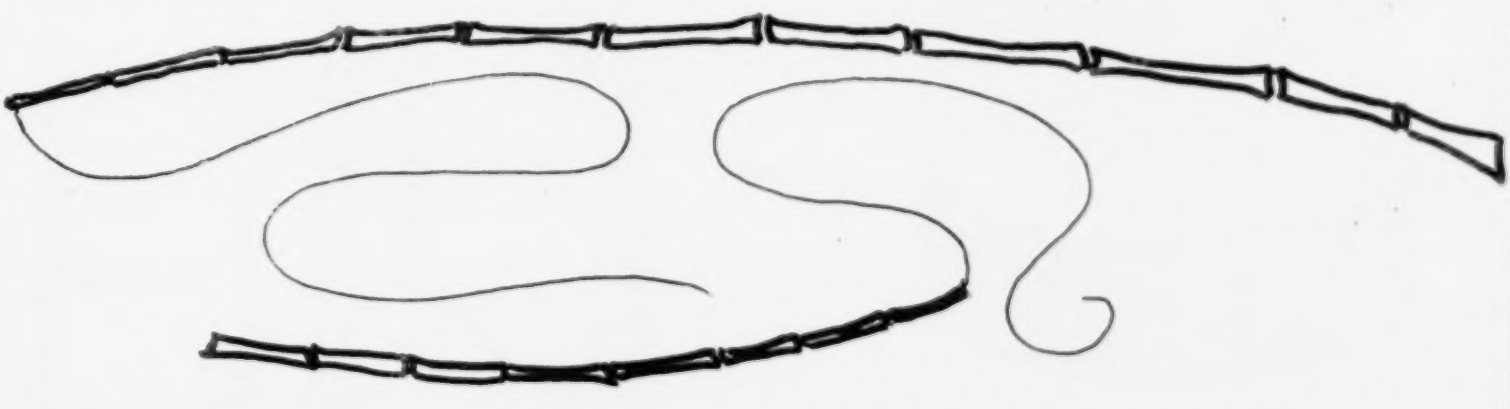


LONG - SHORT

To be used after completion of Card 26

Color the long eel brown. Draw a fish on the short fish line.

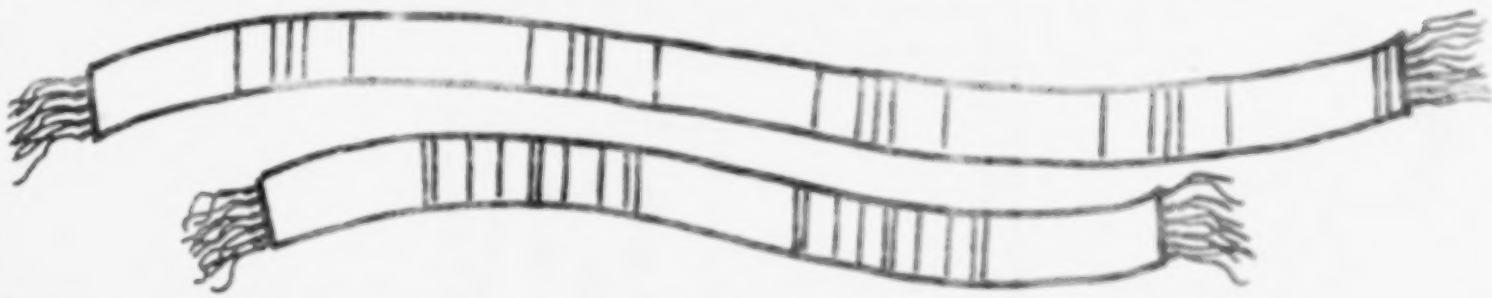




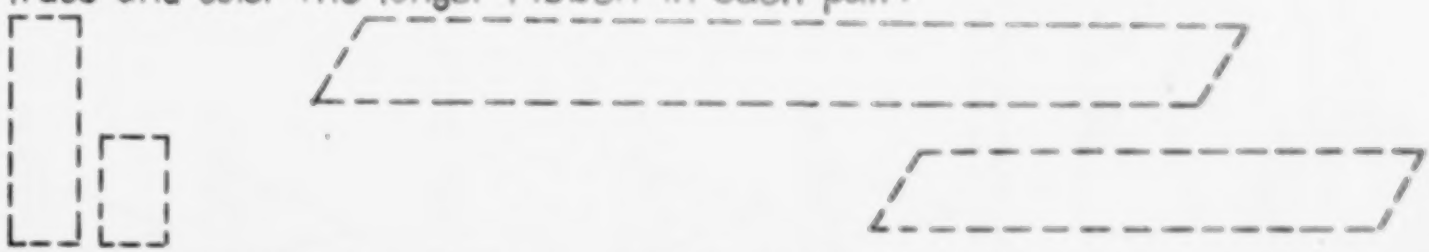
LONGER - SHORTER

To be used after completion of Card 26

Color the short belt.



Trace and color the longer ribbon in each pair.



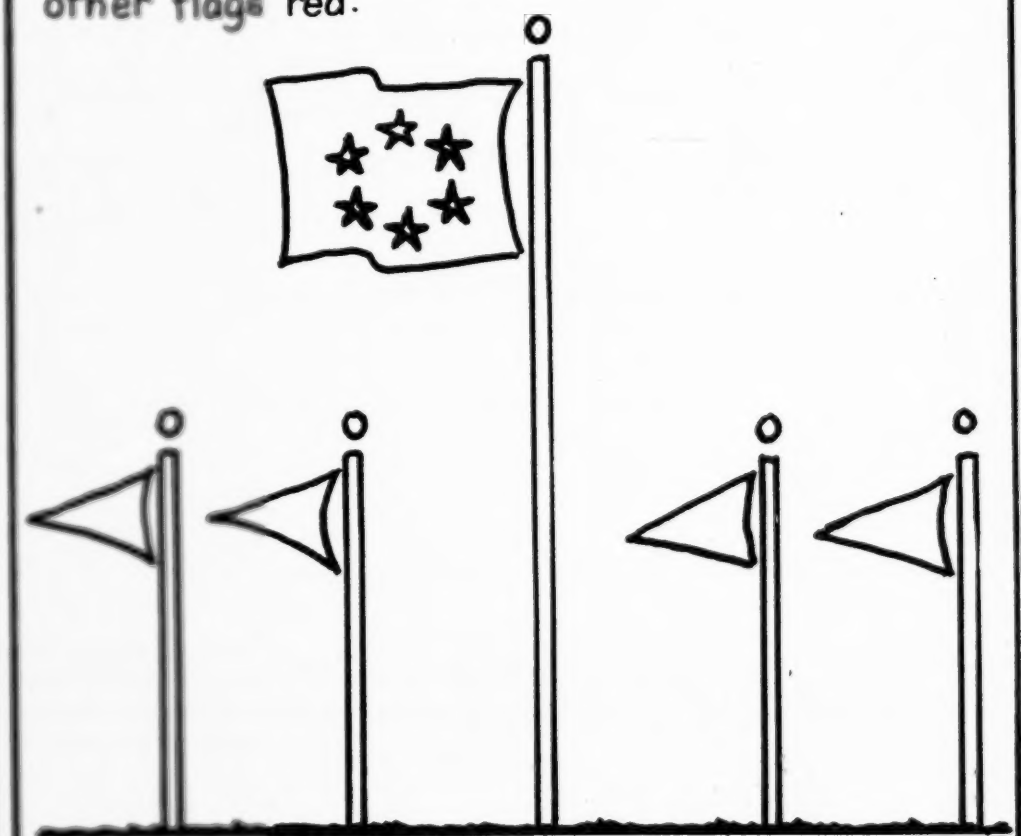
Draw a short fish. Color the long fish brown.

TALL - SHORT

To be used with Card 27

Draw these 2 children.

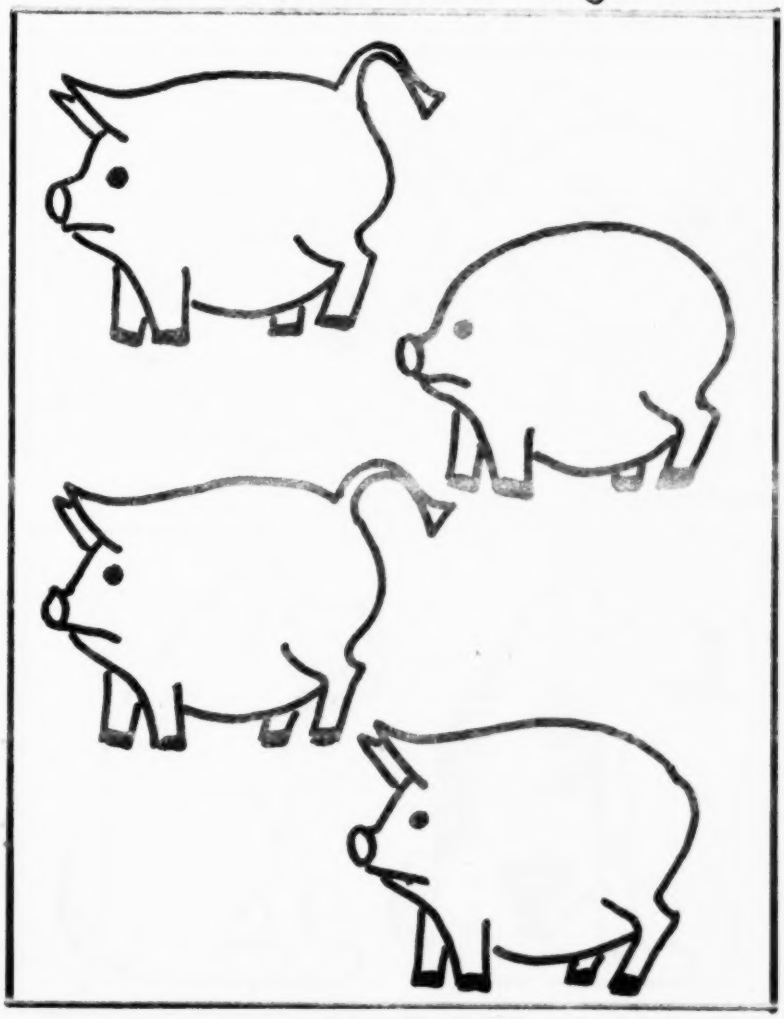
Color the flag on the tall pole blue. Color the other flags red.

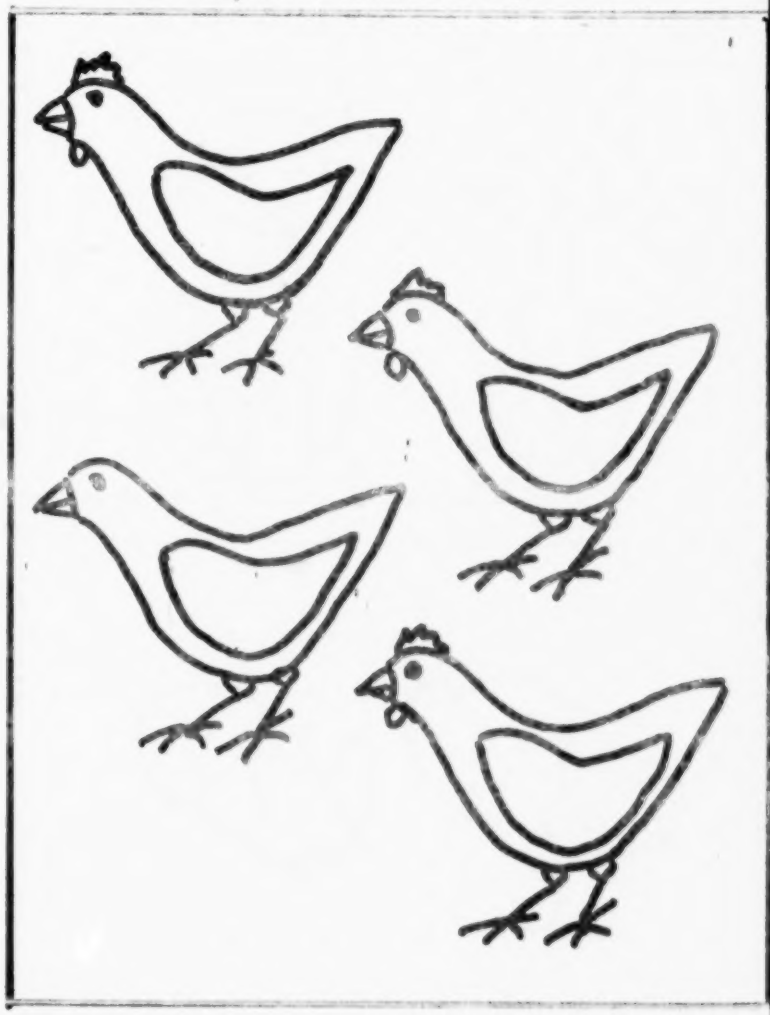


THE SAME AS

To be used with Card 28

In each set, color the things that are the same, the same color.

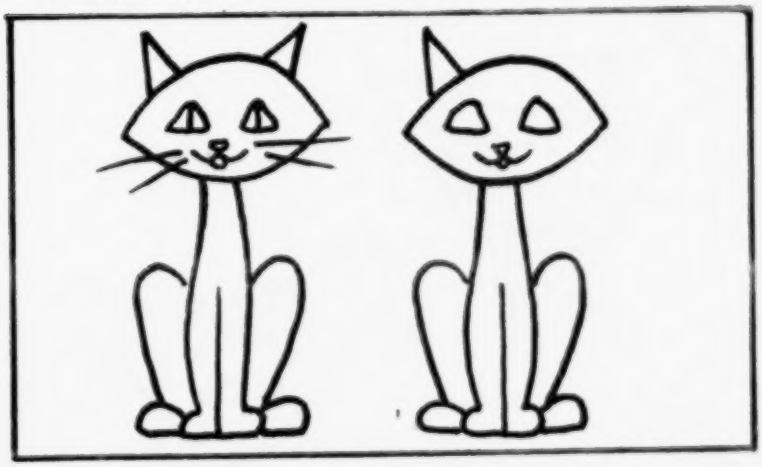


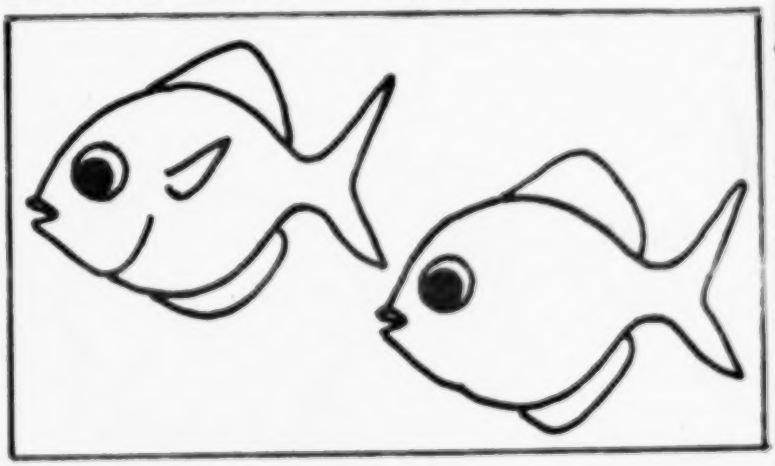


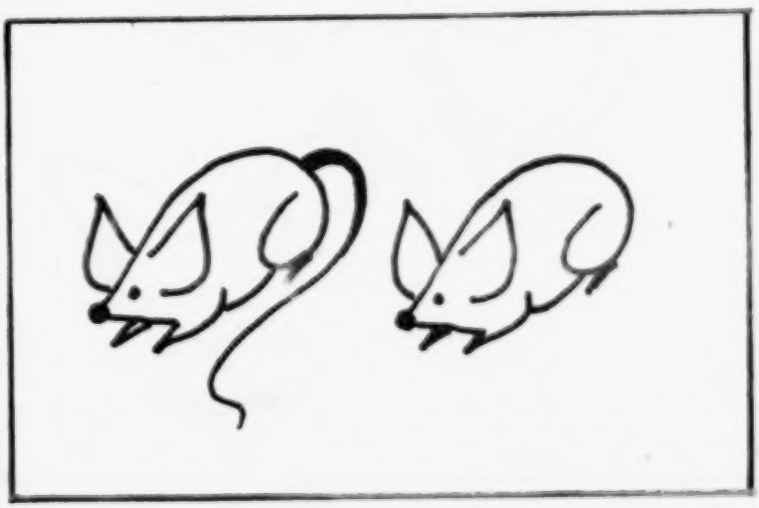
THE SAME AS

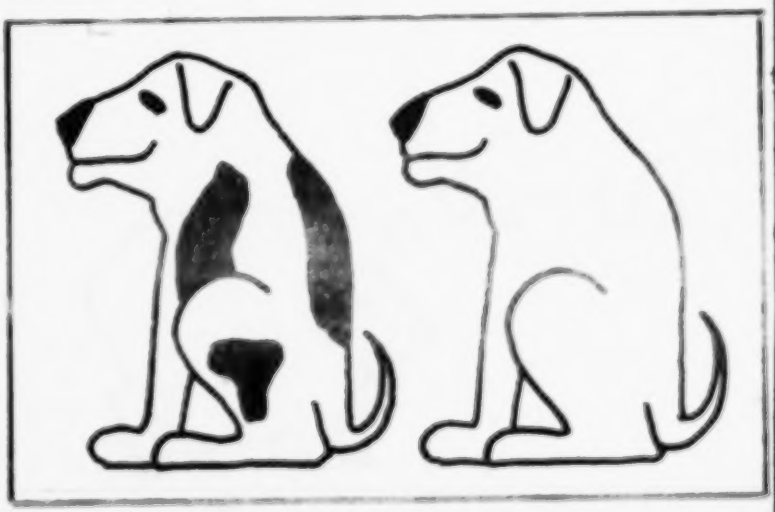
to be used with Card 29

Make the second member in each set look the same as the first.





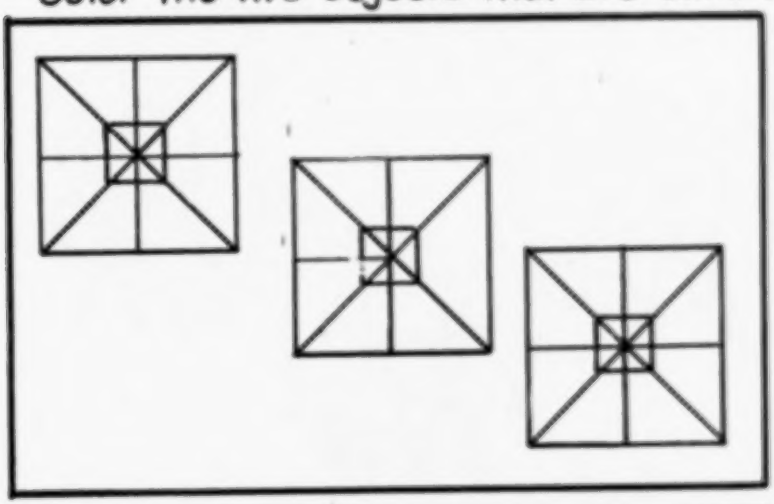


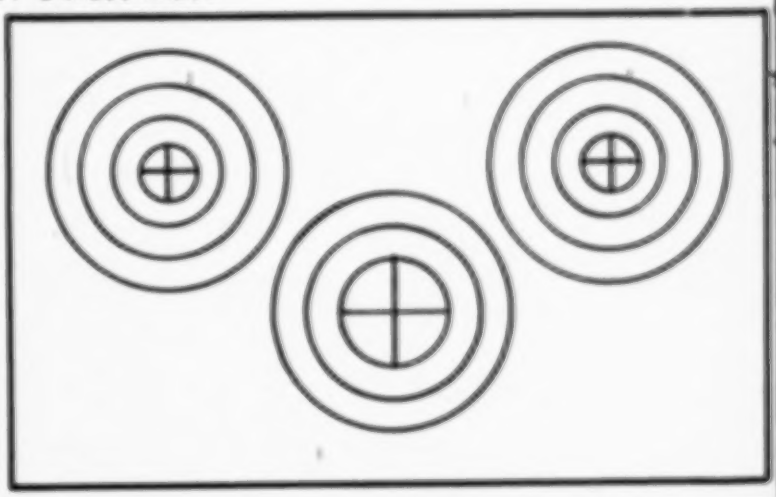


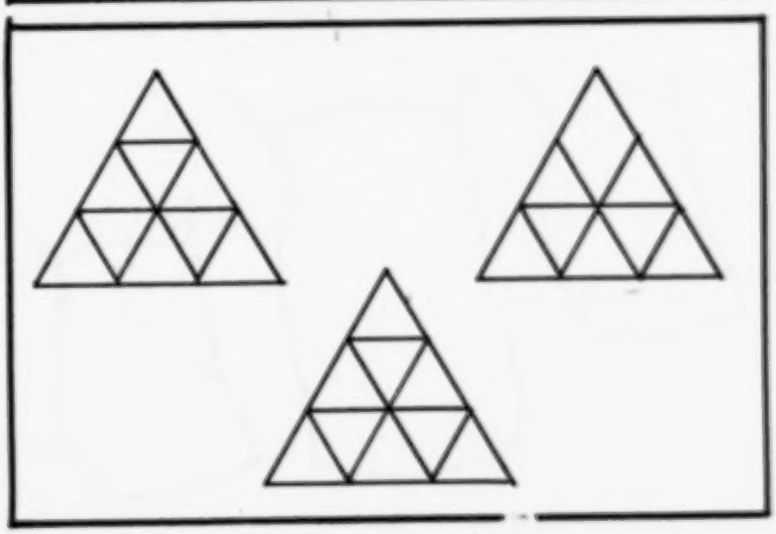
THE SAME AS

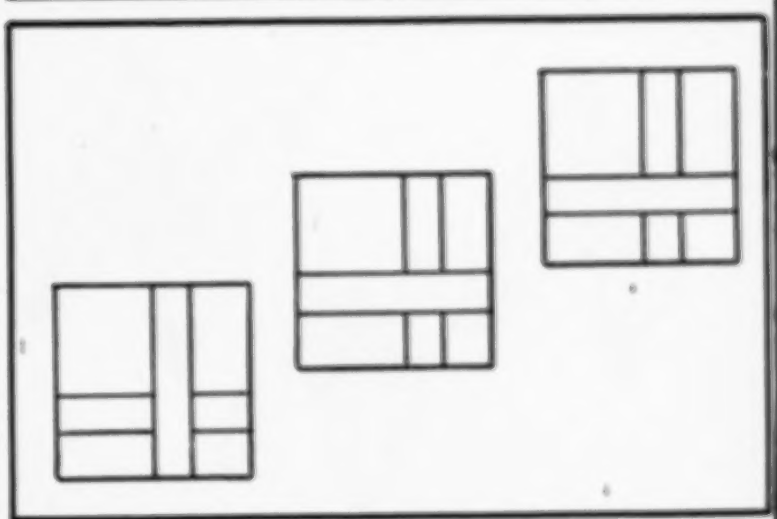
To be used with Card 30

Color the two objects that are alike in each set.





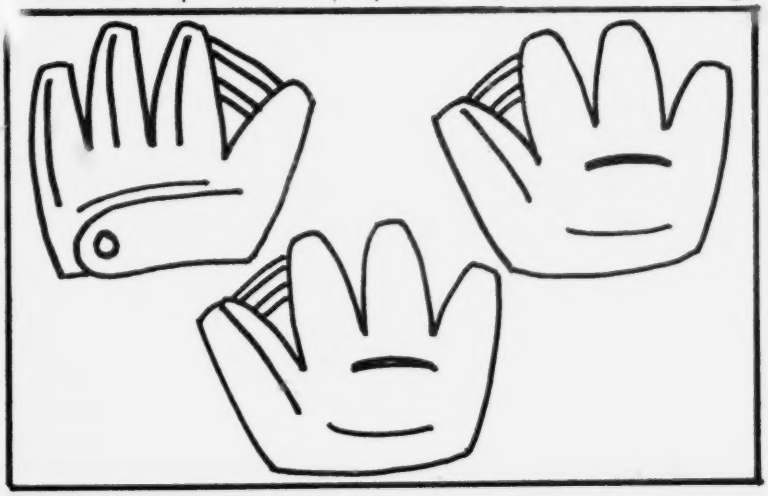


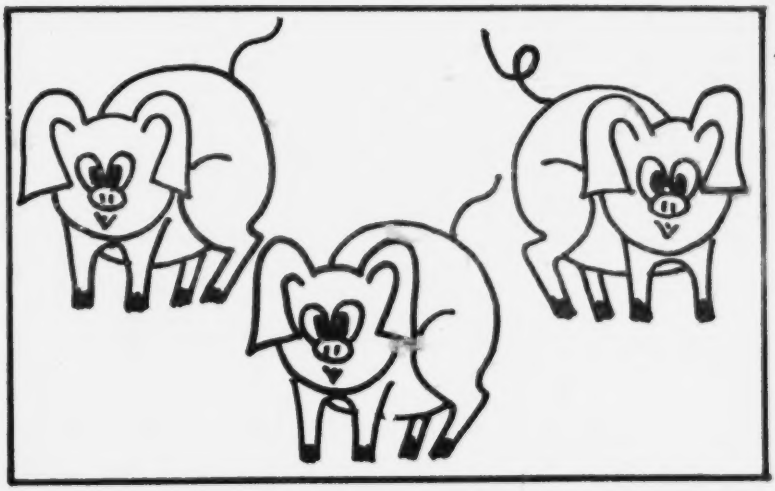


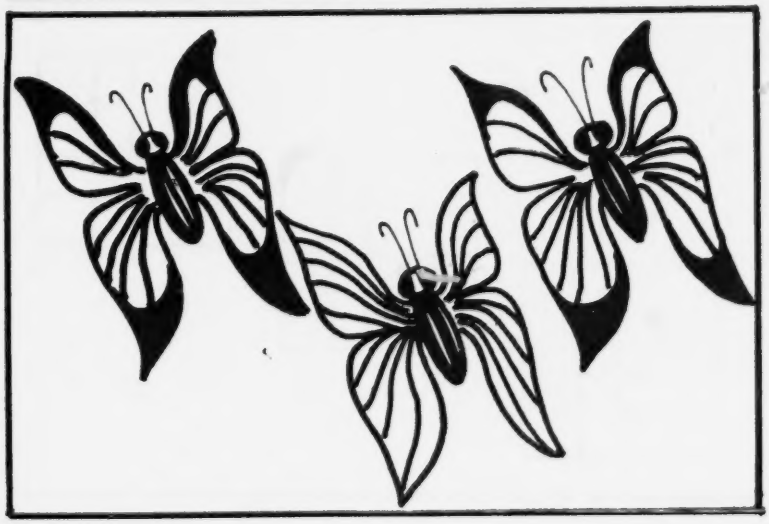
DIFFERENCES

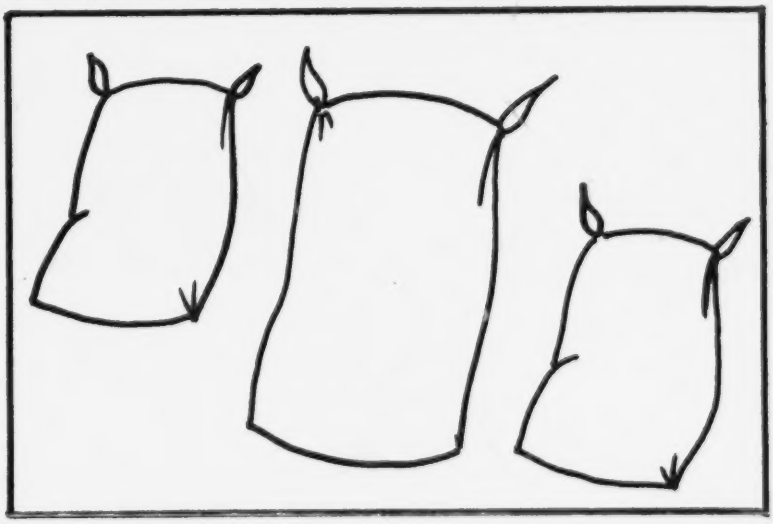
To be used after completion of Card **34**

Paste a piece of paper over the drawing that is different. Color the others.





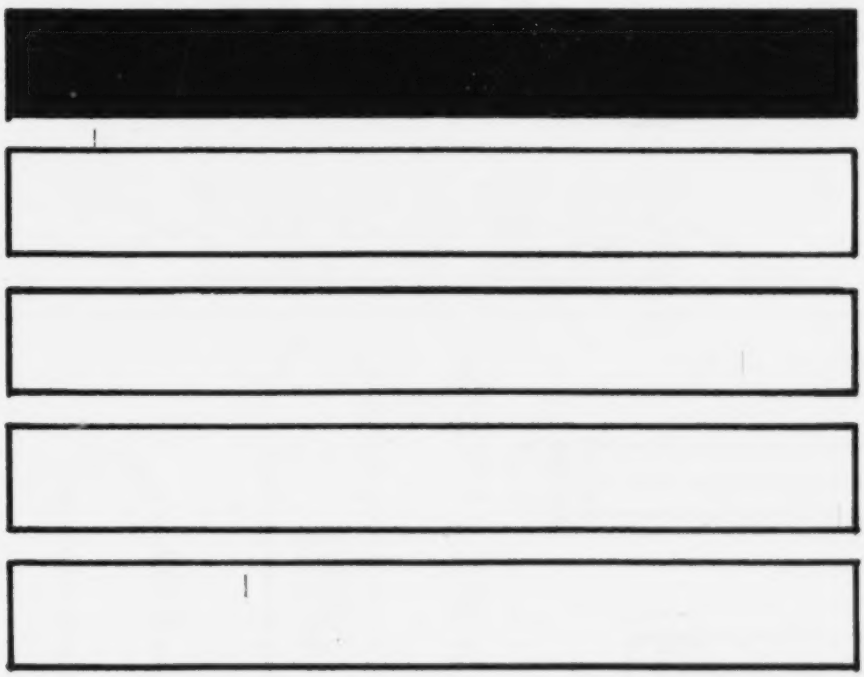




ORDERING BY LENGTH

To be used after completion of Card 35

Color each of the ribbons so that the one below is shorter than the one just above it.
The start ribbon is colored.

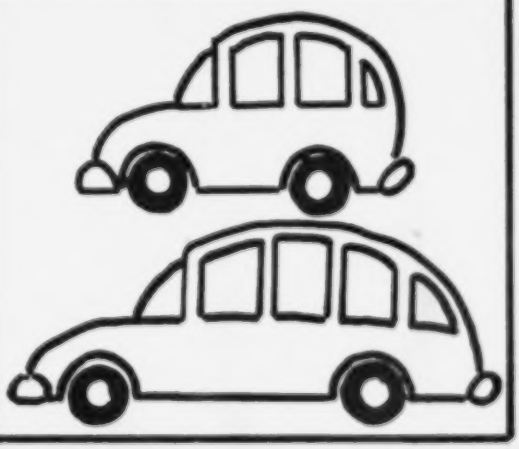


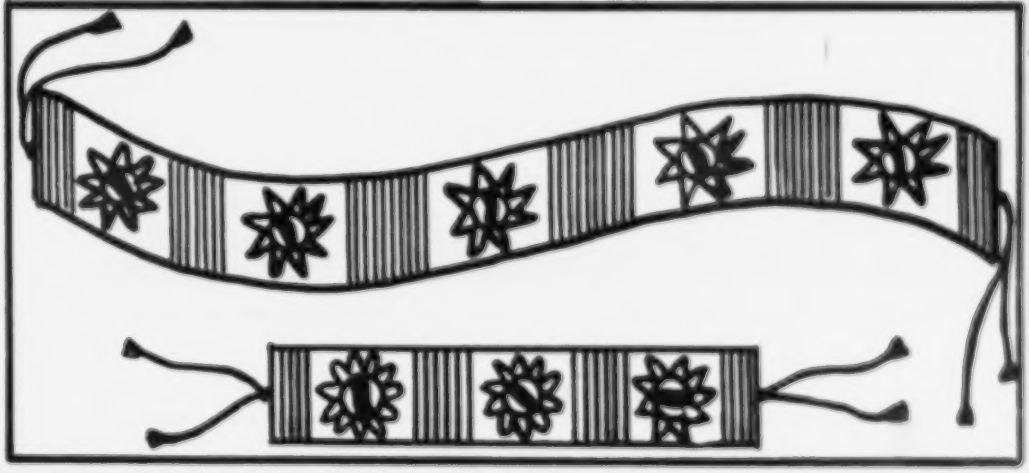
Color the longest stick brown.
Color the shortest stick green.

LONGER - SHORTER

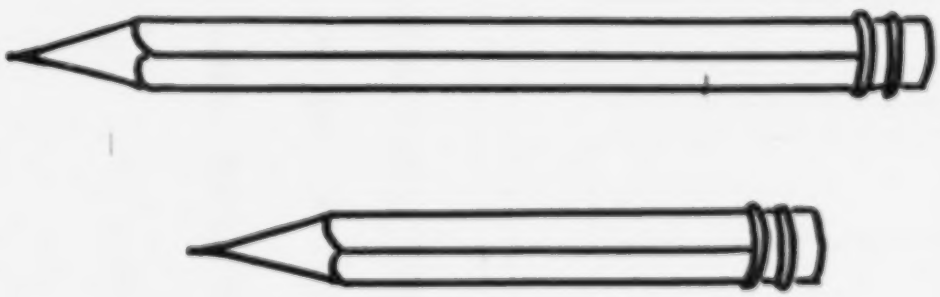
To be used with Card 35

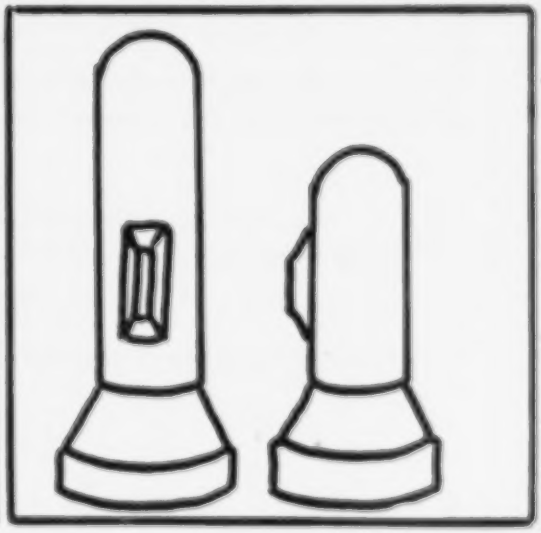
In each set, color the longer things red. Color the shorter things blue.





Draw a pencil shorter than the short pencil.

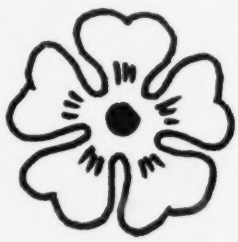


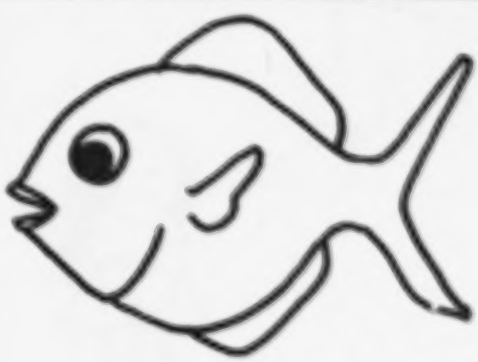


ORDERING OBJECTS BY SIZE

to be used with Card 36

Draw in the missing flowers so that the flowers will be shown in order of size.





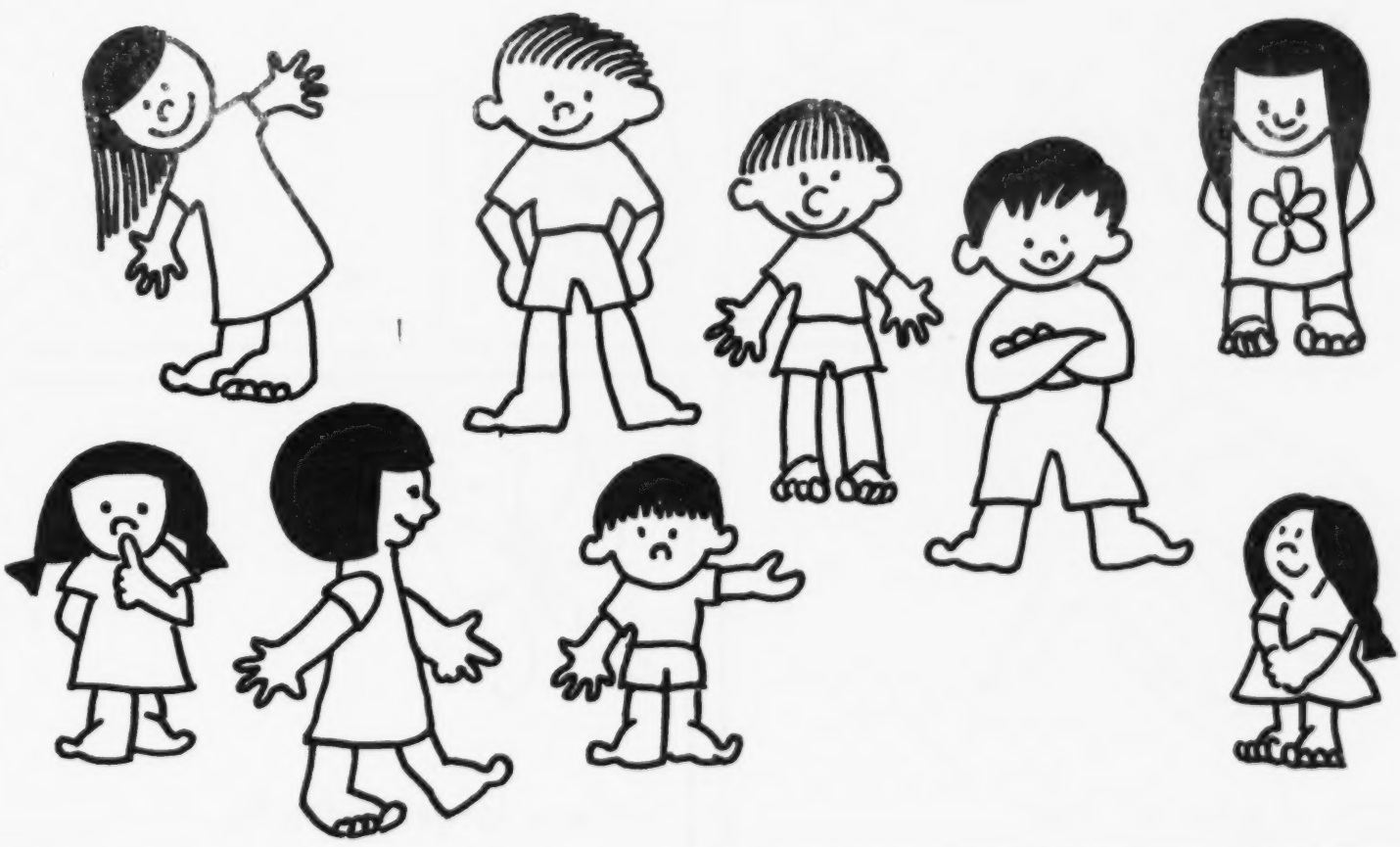
Draw a smaller fish.

Draw a larger butterfly.

MEMBERS, NOT MEMBERS OF A SET

to be used with Card 41

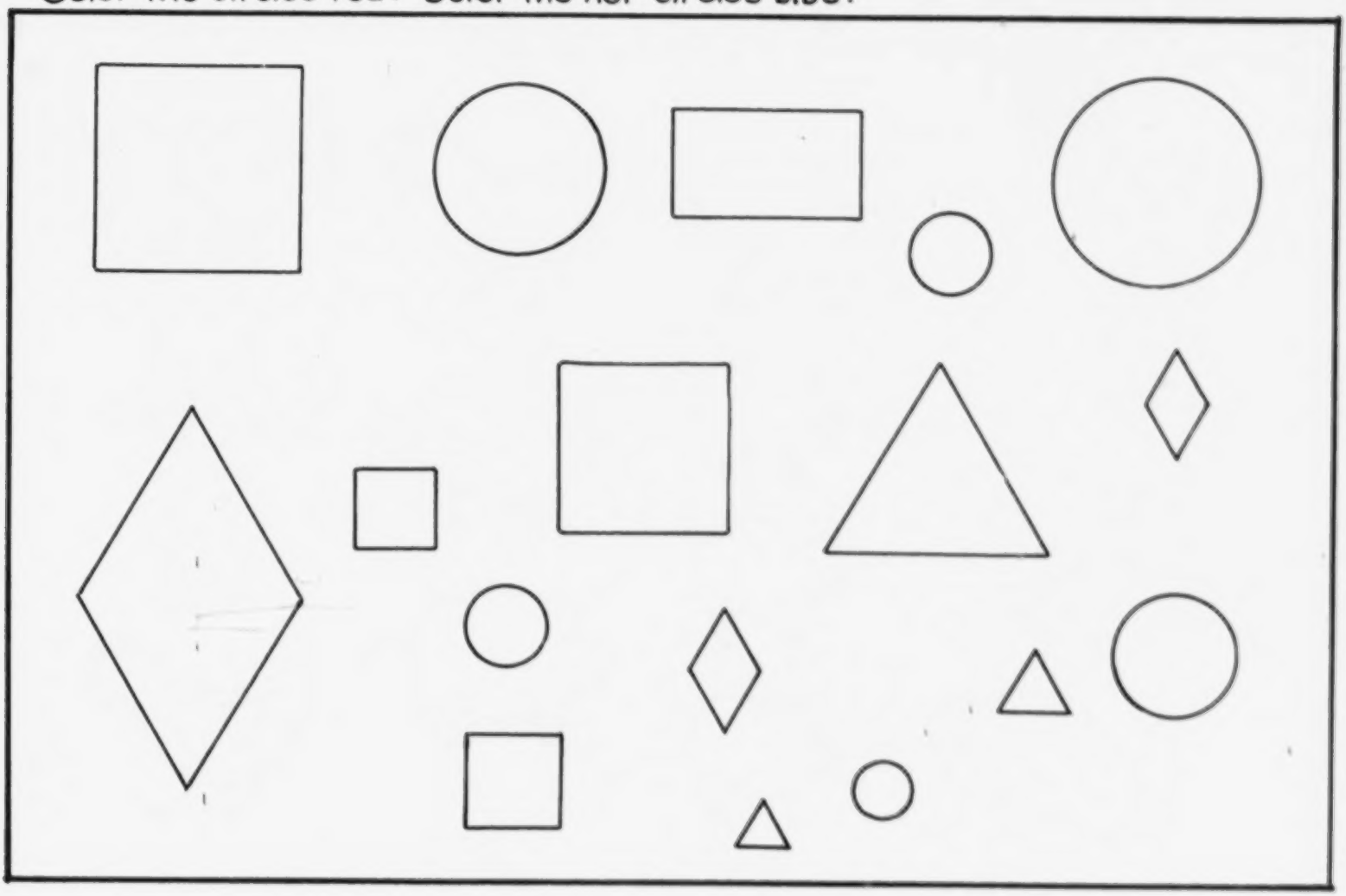
Ring the set of boys. Color the members of the set of boys. Mark X on the not members.



SORTING COMPLEMENTS

to be used with Card 42

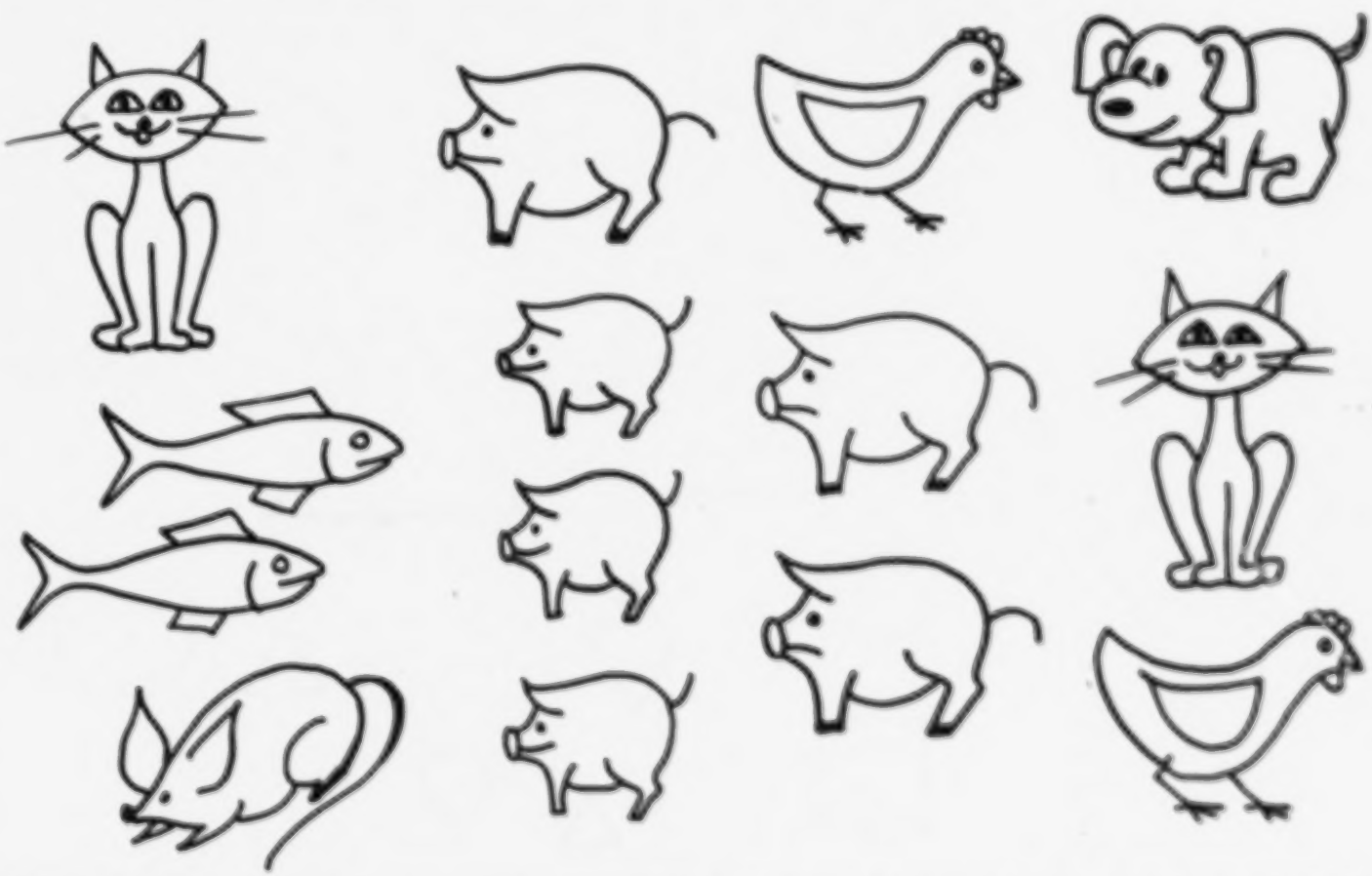
Color the circles red. Color the not-circles blue.



MEMBERS and NOT MEMBERS To be used after completion of Card 43

Ring the set of pigs. Next ring the set of small pigs.

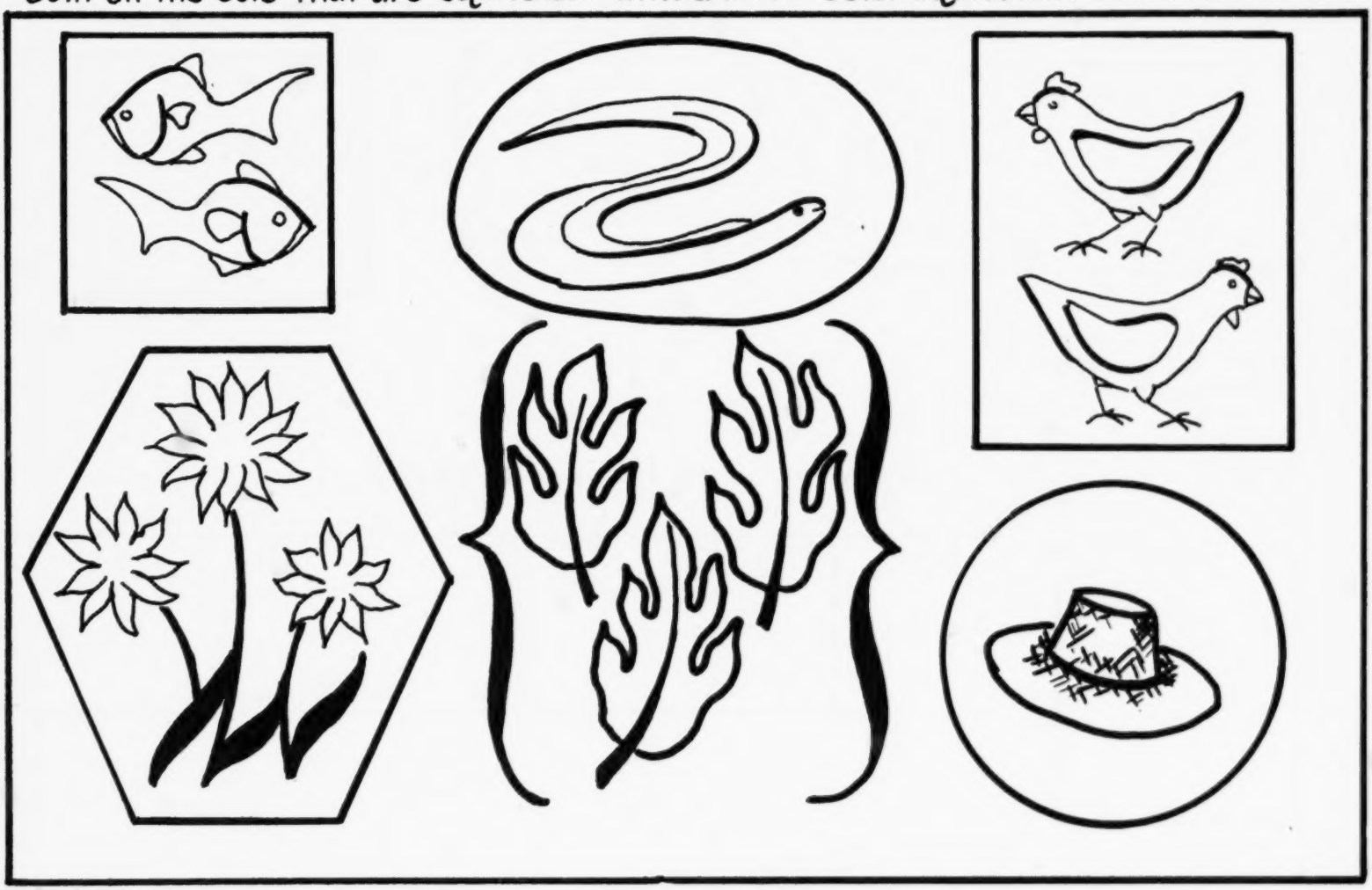
Color all the pigs brown. Write X on all the not-pigs.



SETS BY ATTRIBUTE OF NUMBERS

To be used with Card **45**

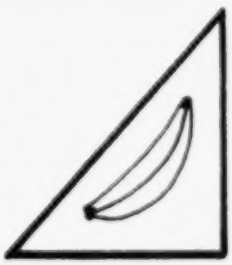
Join all the sets that are equivalent with a line. Color equivalent sets the same color.

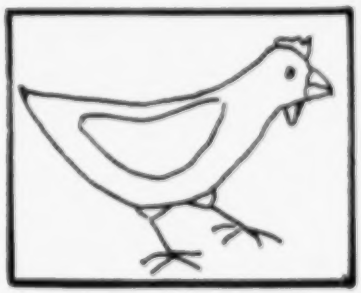


NUMBER 1 & NUMERAL 1

To be used with Card 46

Color the sets with one member.



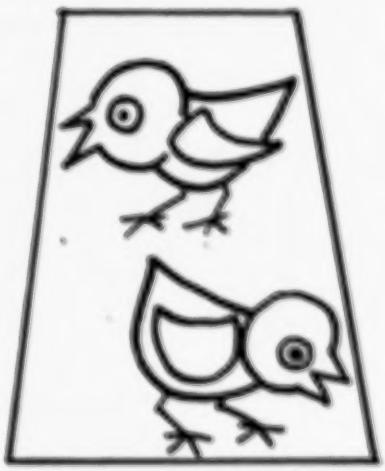


Draw one person.

Trace and write the numeral one.

NUMBER 2 & NUMERAL 2 to be used with Card No. 47

Color the sets with two members.



Trace and write
the numeral two.

2 2

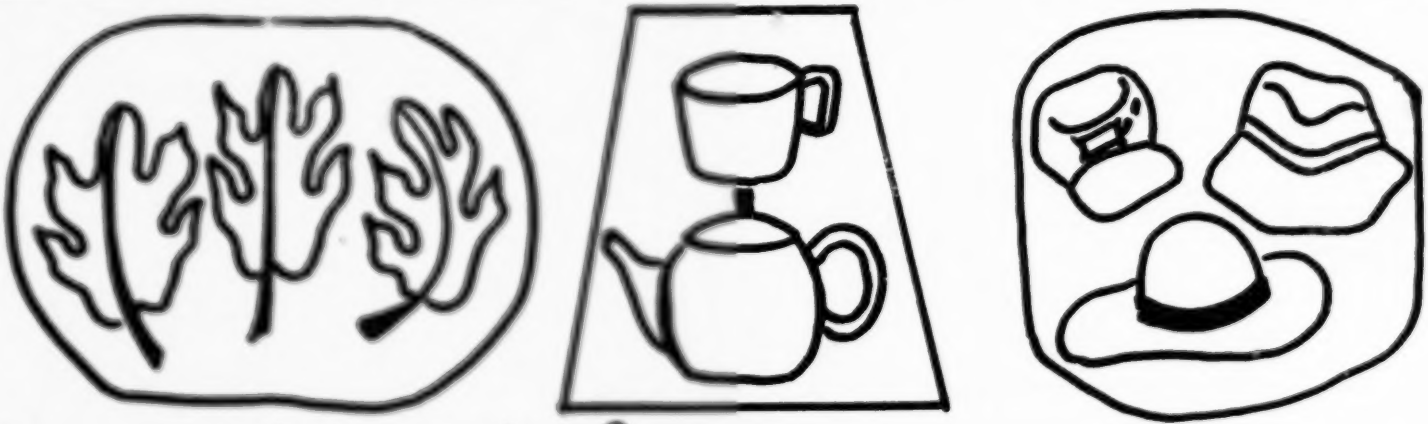
Draw the correct number
of triangle in each square.

1 2

NUMBER 3 & NUMERAL 3

To be used with Card 48

Color the sets with three members



Trace and write the number 3

3 3 3

Draw the correct number of circles in each square.

1 one

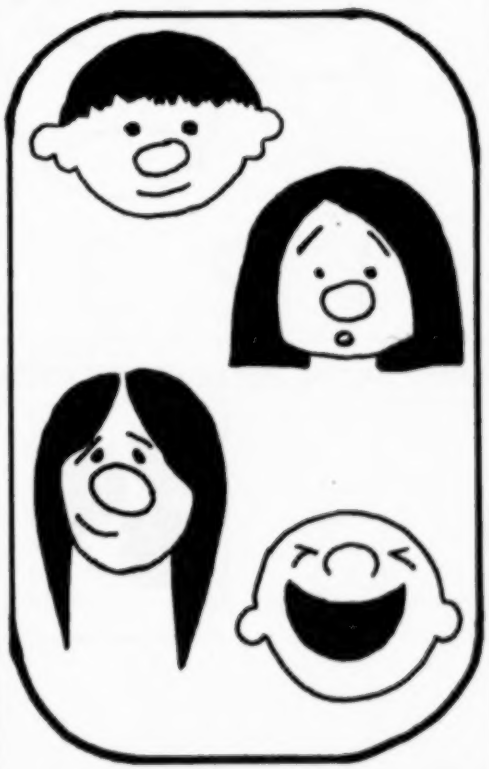
2 two

3 three

NUMBER 4 & NUMERAL 4

To be used with Card 49

four 4



Draw 4 balls

Trace and write

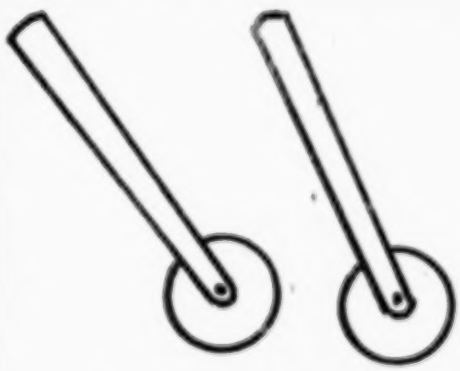
Draw 4 bottles

Trace and write

NUMBER OF SETS

To be used with Card 50

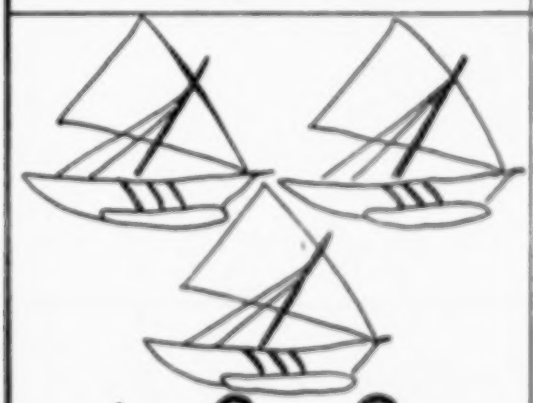
Ring the numeral which tells the number of members in each set.



1 2 3

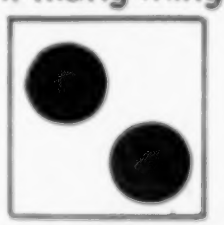
1 2 3

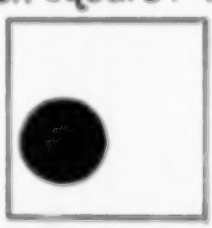
1 2 3

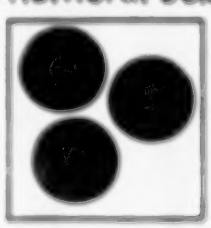


1 2 3

How many things in each square? Write the numeral below.



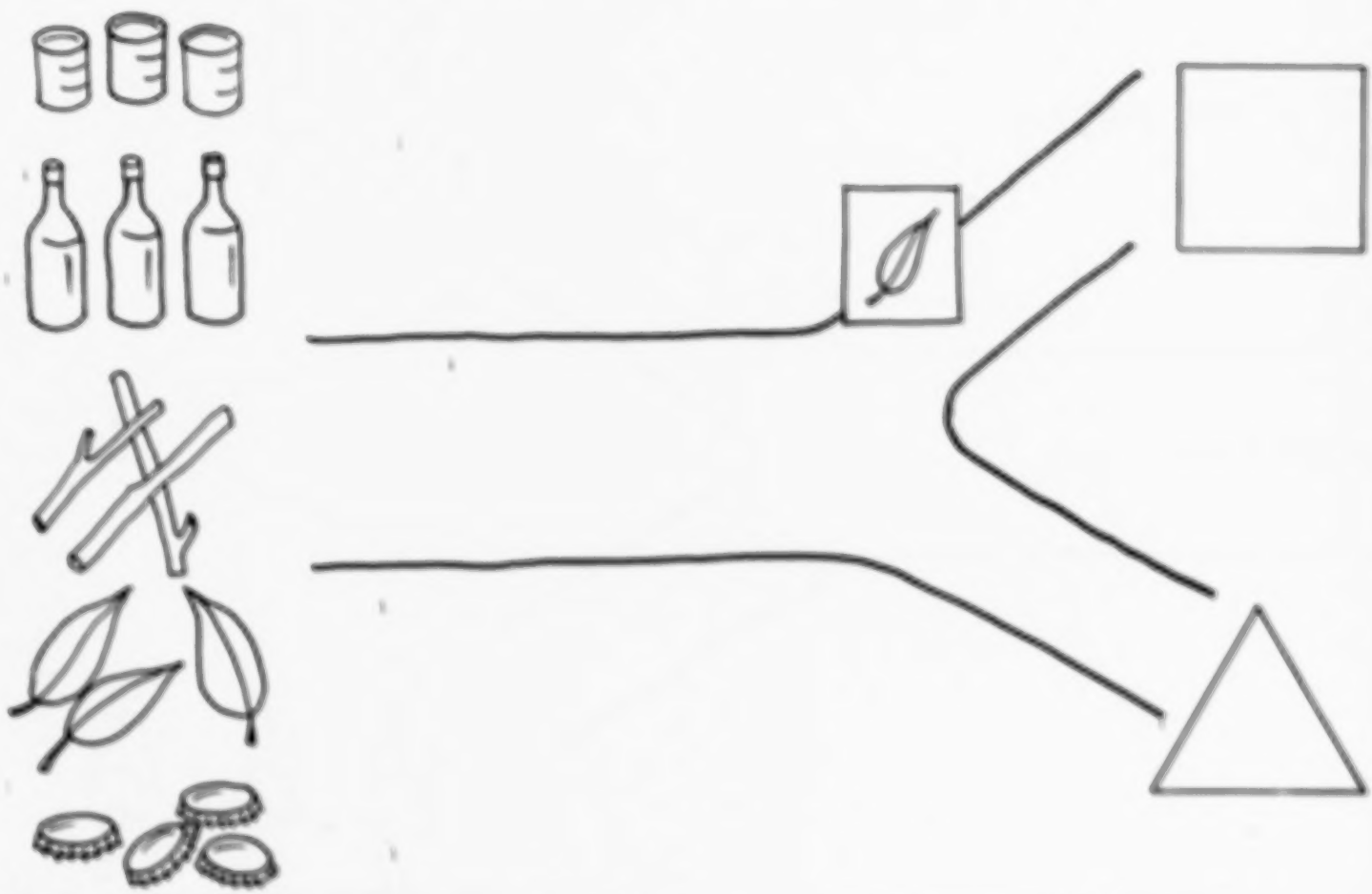




ONE-CHOICE SORTING

To be used after completion of Card 52

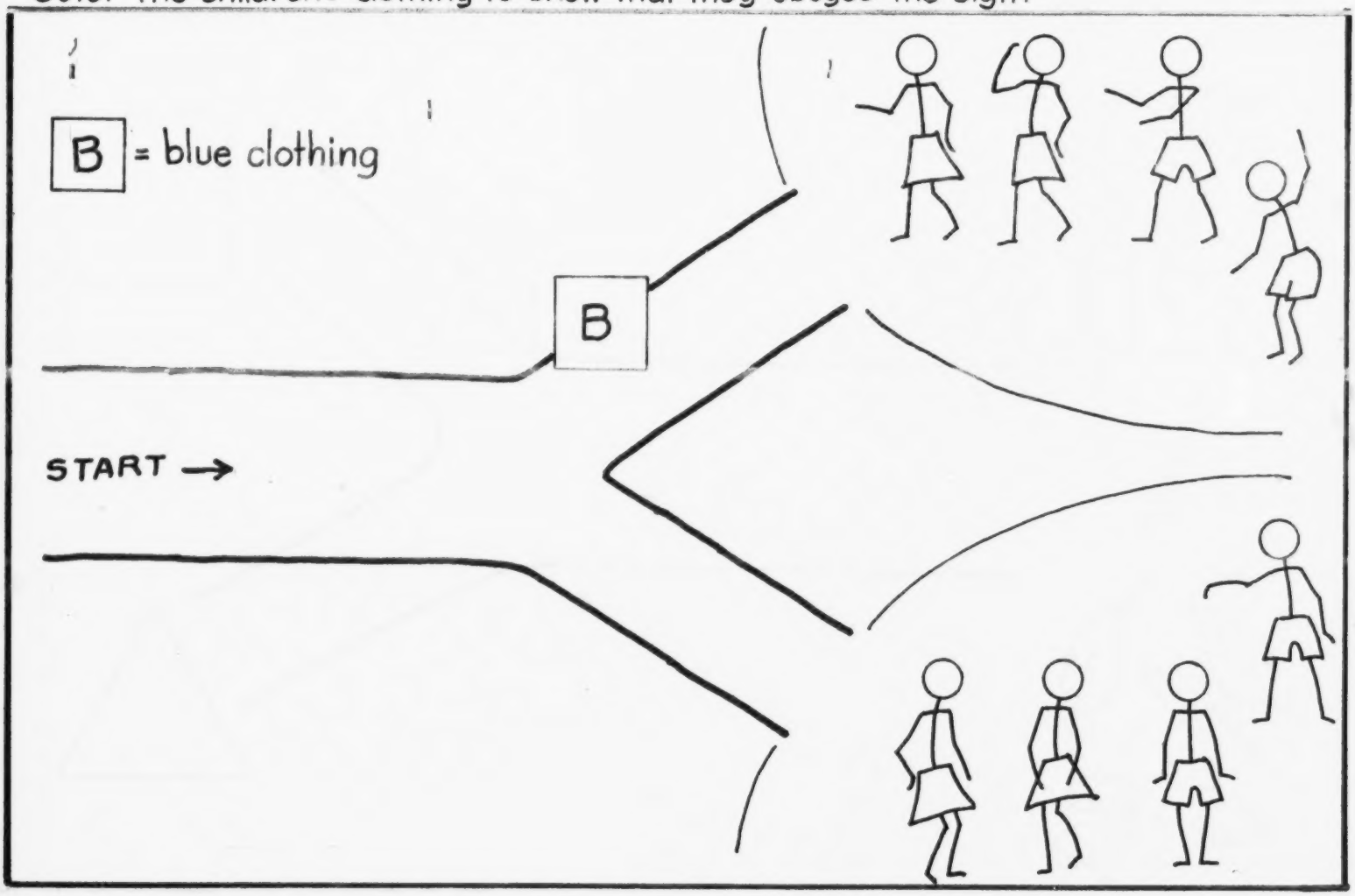
Draw arrows from the set of objects along the road. Obey the road signs.



ONE-CHOICE SORTING

To be used after completion of Card 53

Color the children's clothing to show that they obeyed the sign.

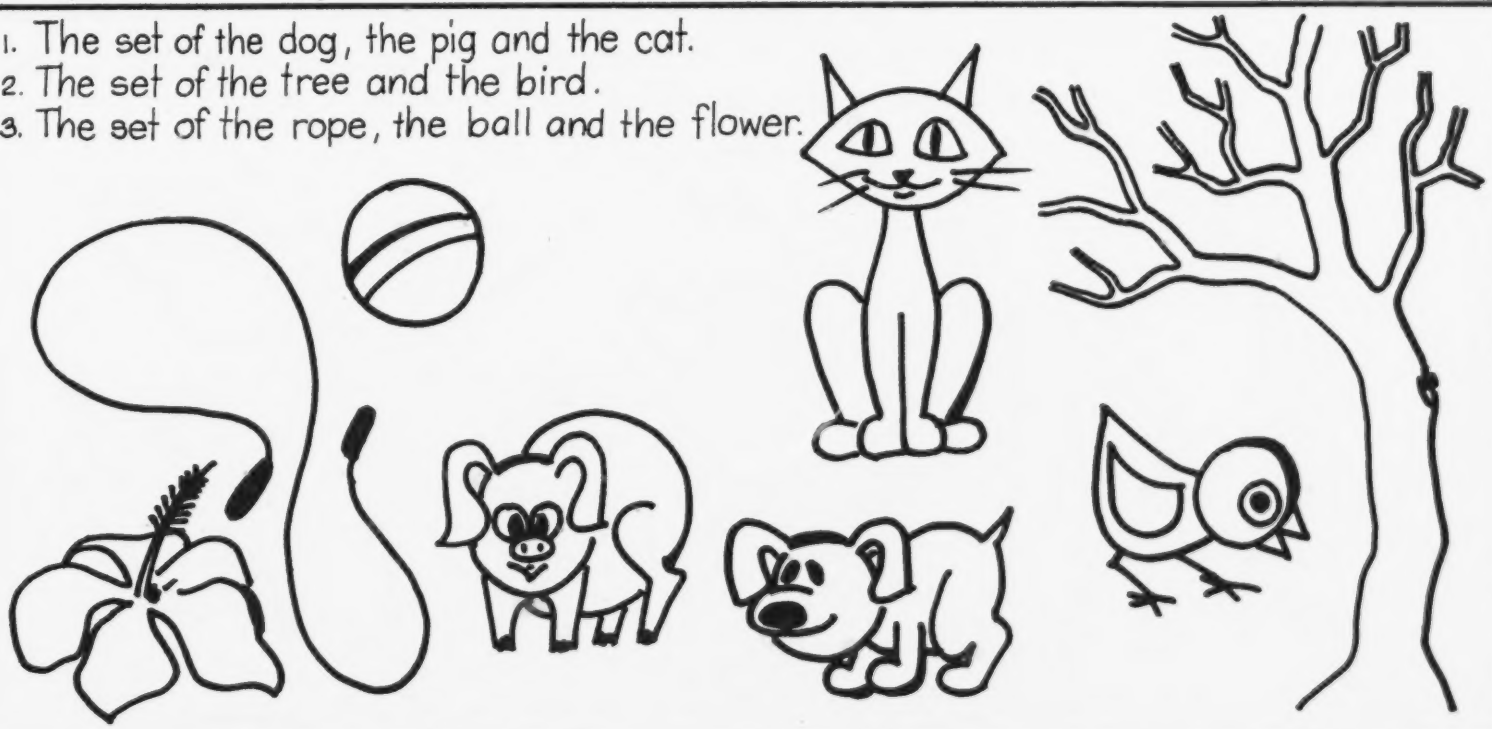


SETS BY NOMINATION

To be used after completion of Card 54

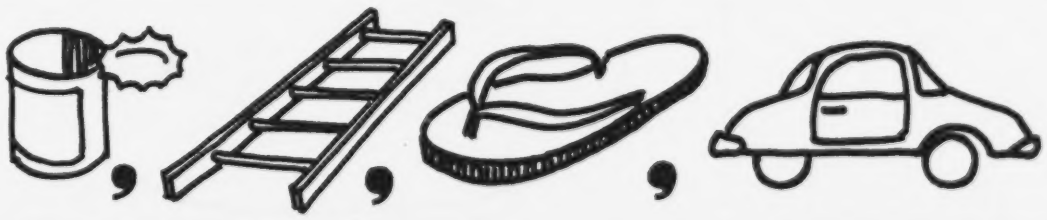
Place set braces { } around each set. Name the set. Color all members of a set same color.

1. The set of the dog, the pig and the cat.
2. The set of the tree and the bird.
3. The set of the rope, the ball and the flower.



Color the members of this set.

Say the members of the set.

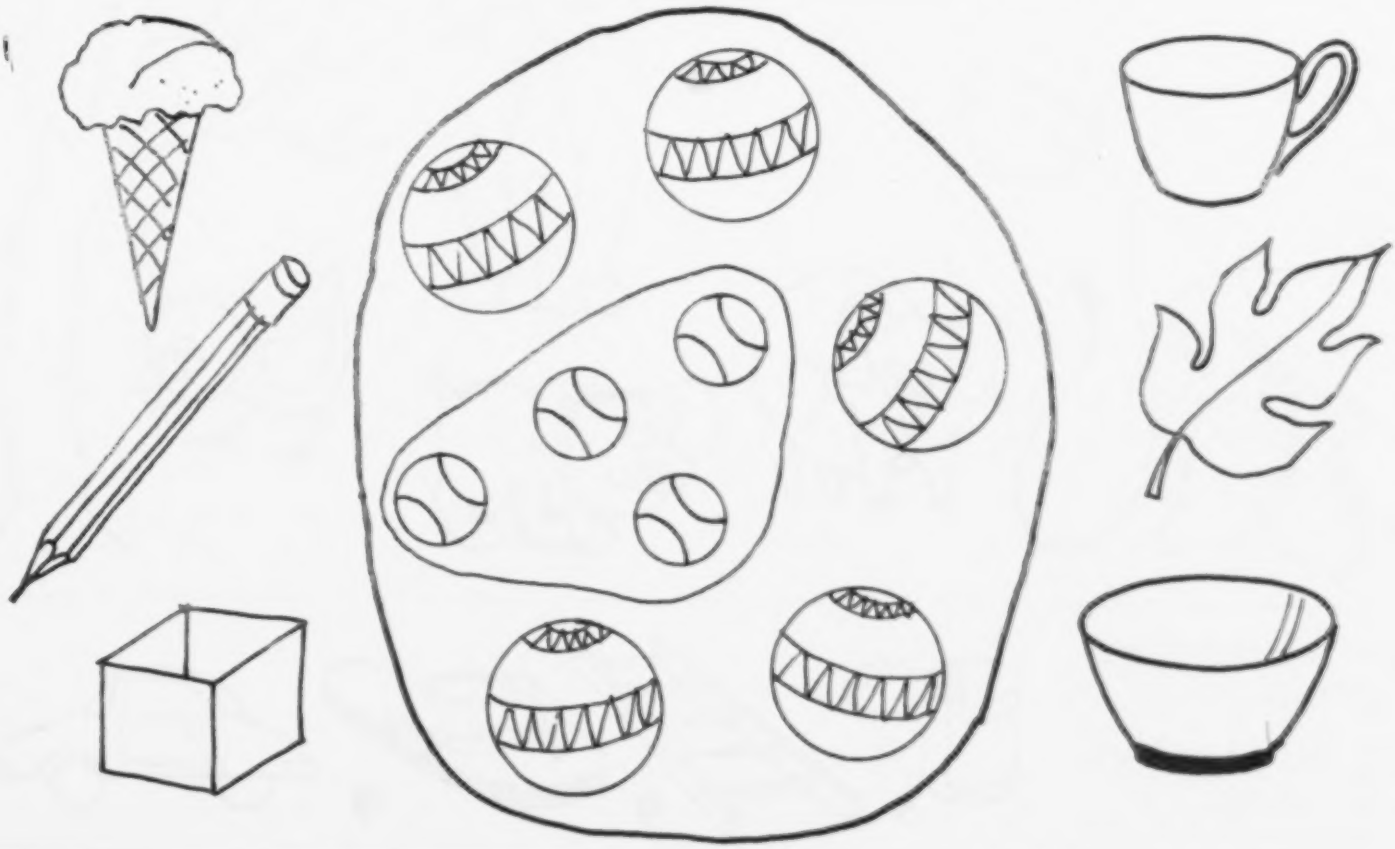


STARTING SET, SET, SUBSET

To be used after completion of Card 58

This is the starting set.

Color all members of the starting set. Write X on the members of the set of balls. Draw a line under the members of the subset of small balls.



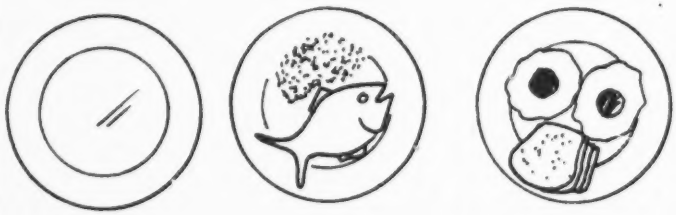
EMPTY SET

To be used after completion of Card 59

Write X on each empty set. Color the not empty sets.

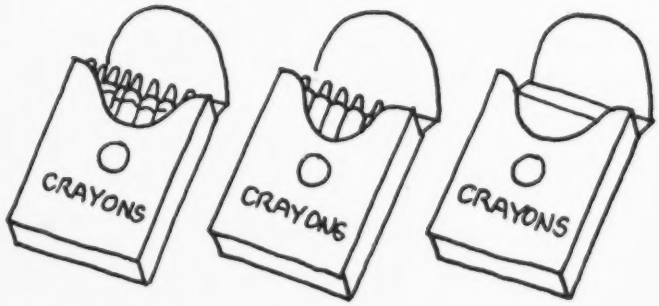
Set of drinks

Set of food



Set of flowers

Set of crayons



EMPTY SET

To be used after completion of Card 60

From the starting set draw the sets named below. Write X on the empty set.

1. Starting set:

The set of banana and coconut.	Set of the tree and the bird.	Set of the leaf, shell and flower.
{ }	{ }	{ }

From the starting set draw the sets named below. Write X on the empty set.

2. Starting set: △ □ □ □ △ △

The set of triangles.	The set of squares.	The set of circles.
{ }	{ }	{ }

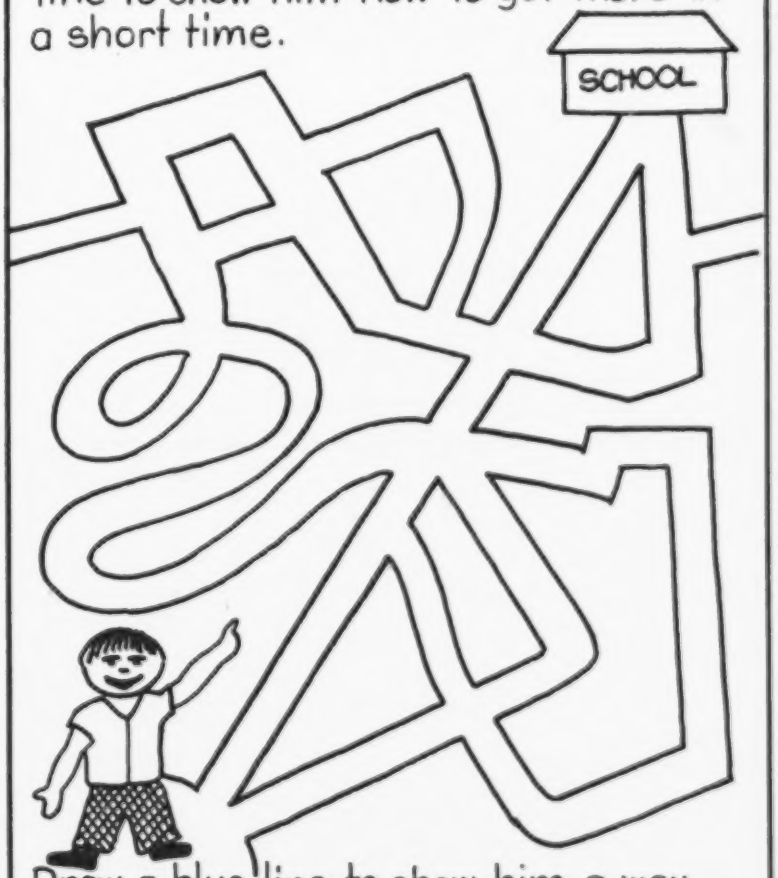
A LONG TIME, A SHORT TIME

To be used after completing Card 62

Here is a way to go to Guam that would take a long time.

Draw a picture to show how to travel to Guam in a short time.

Bill wants to go to school. Draw a red line to show him how to get there in a short time.

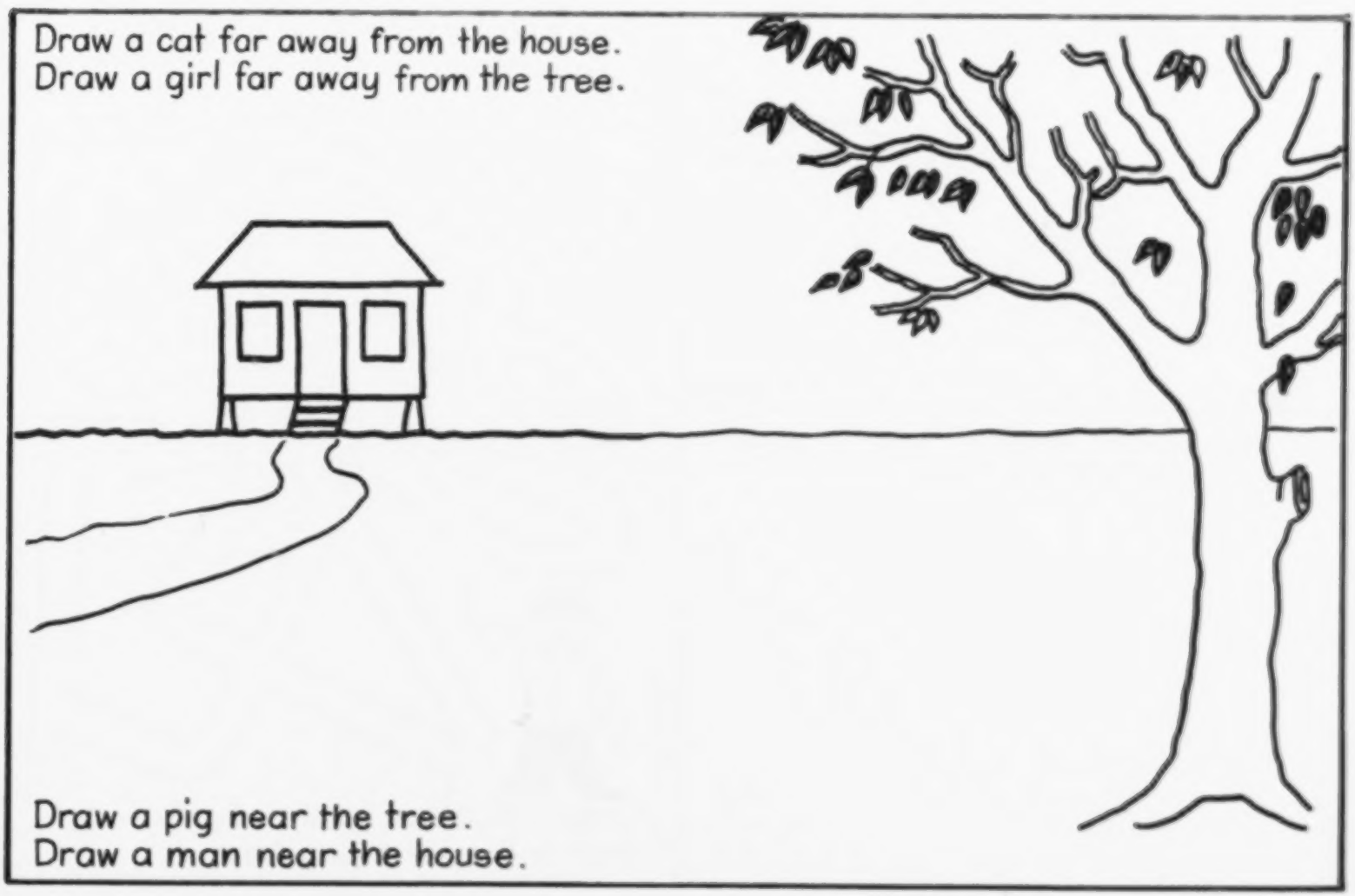


Draw a blue line to show him a way that will take a long time.

NEAR - FAR

To accompany Card 64

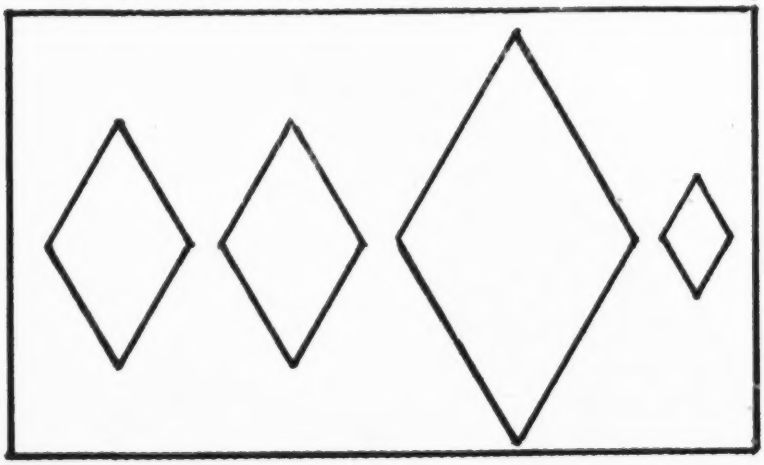
Draw a cat far away from the house.
Draw a girl far away from the tree.

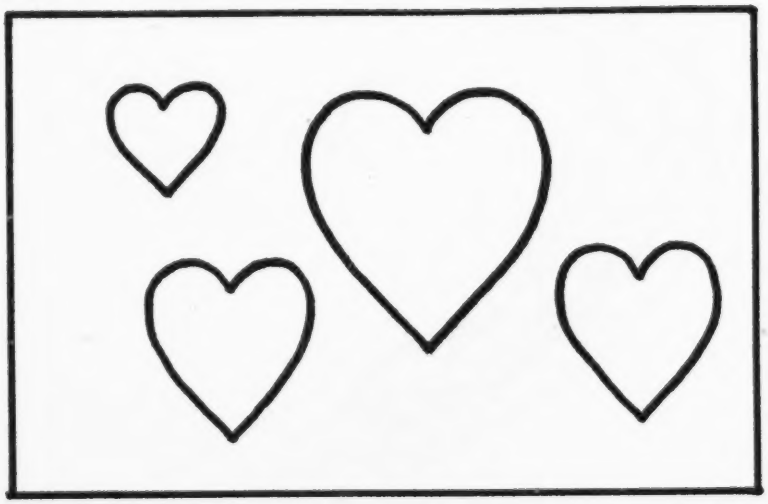


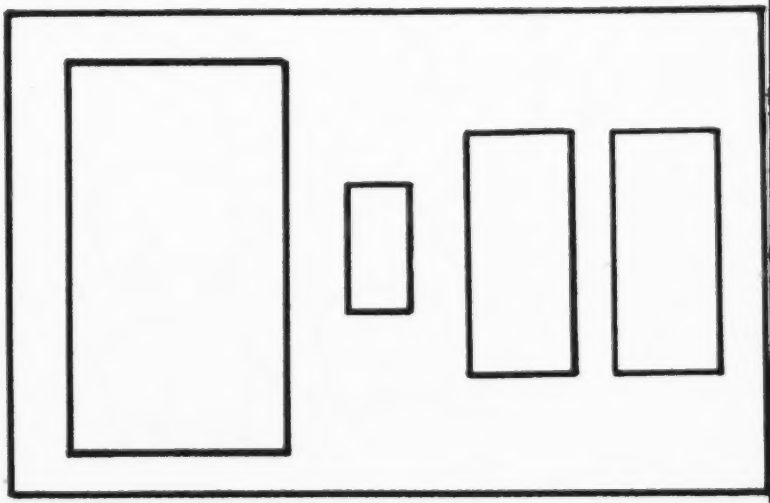
Draw a pig near the tree.
Draw a man near the house.

COVERS MORE THAN, LESS THAN, AS MUCH AS Card 65

Color the ones that cover more, red. Color the ones that cover less, green.
Color the ones that cover as much as, orange.



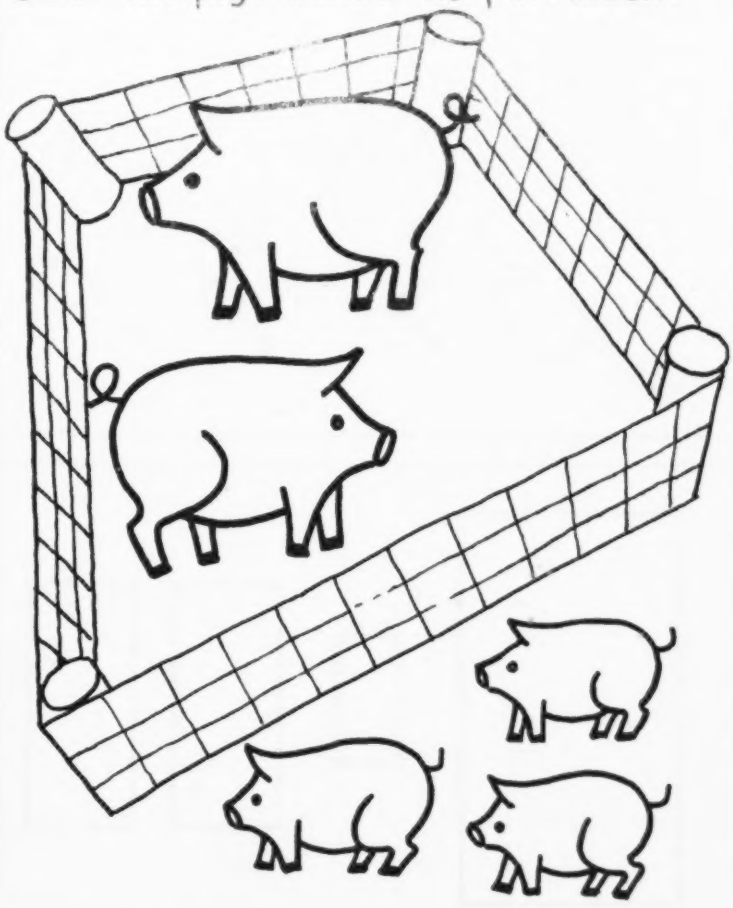




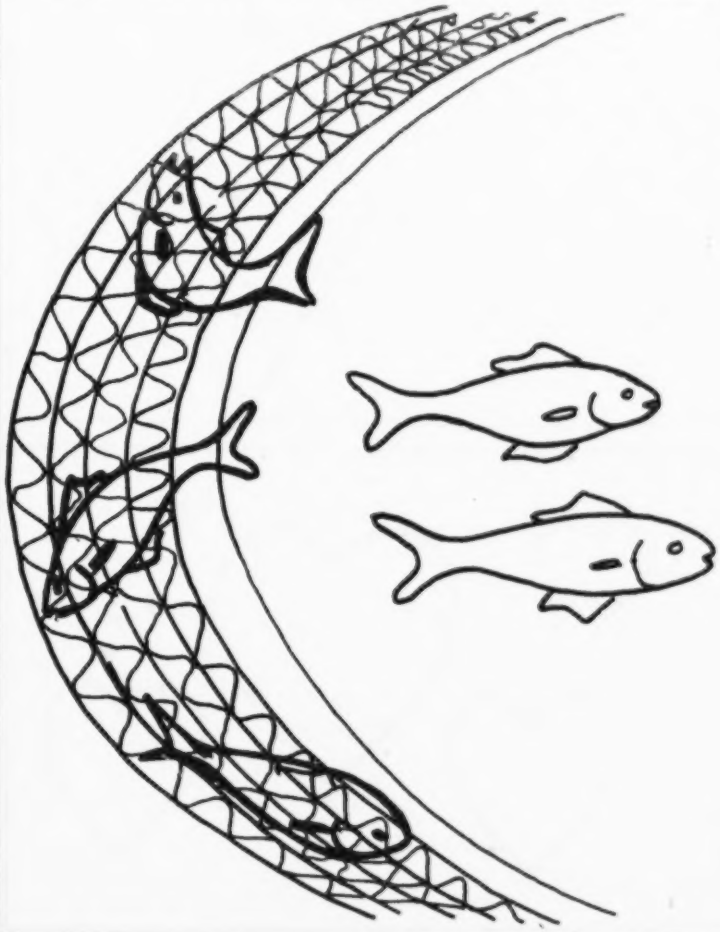
INSIDE - OUTSIDE

To be used with Card 66

Color the pigs inside the pen black.



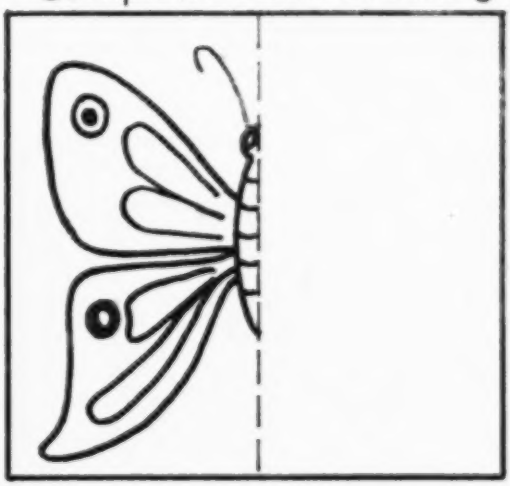
Color the fishes outside the net red.

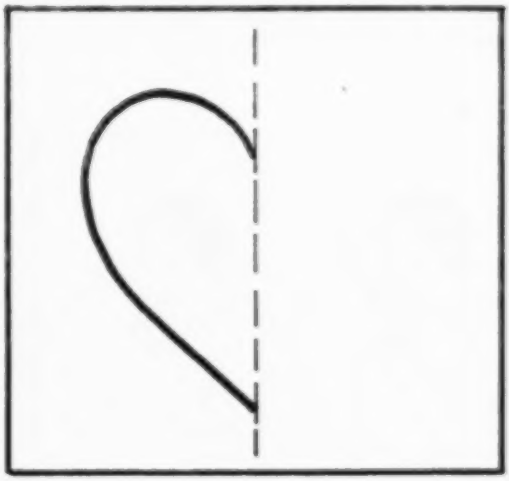


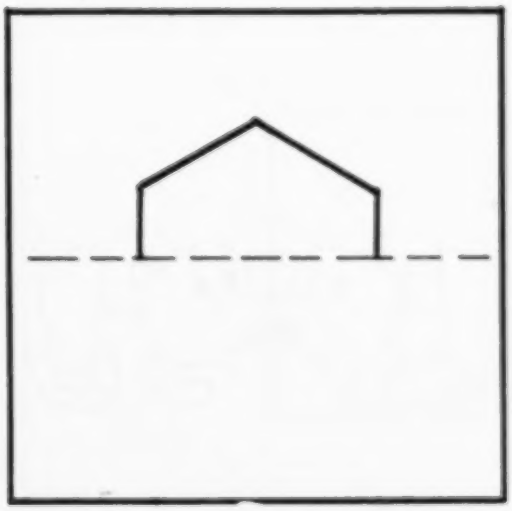
SYMMETRY

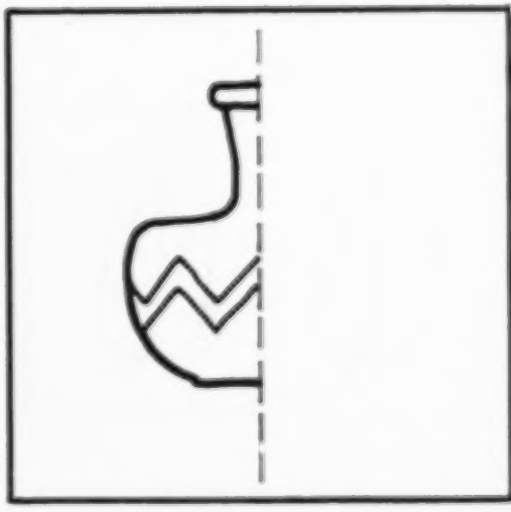
To be used after completion of Card 68

Complete each drawing so that the two halves look the same.





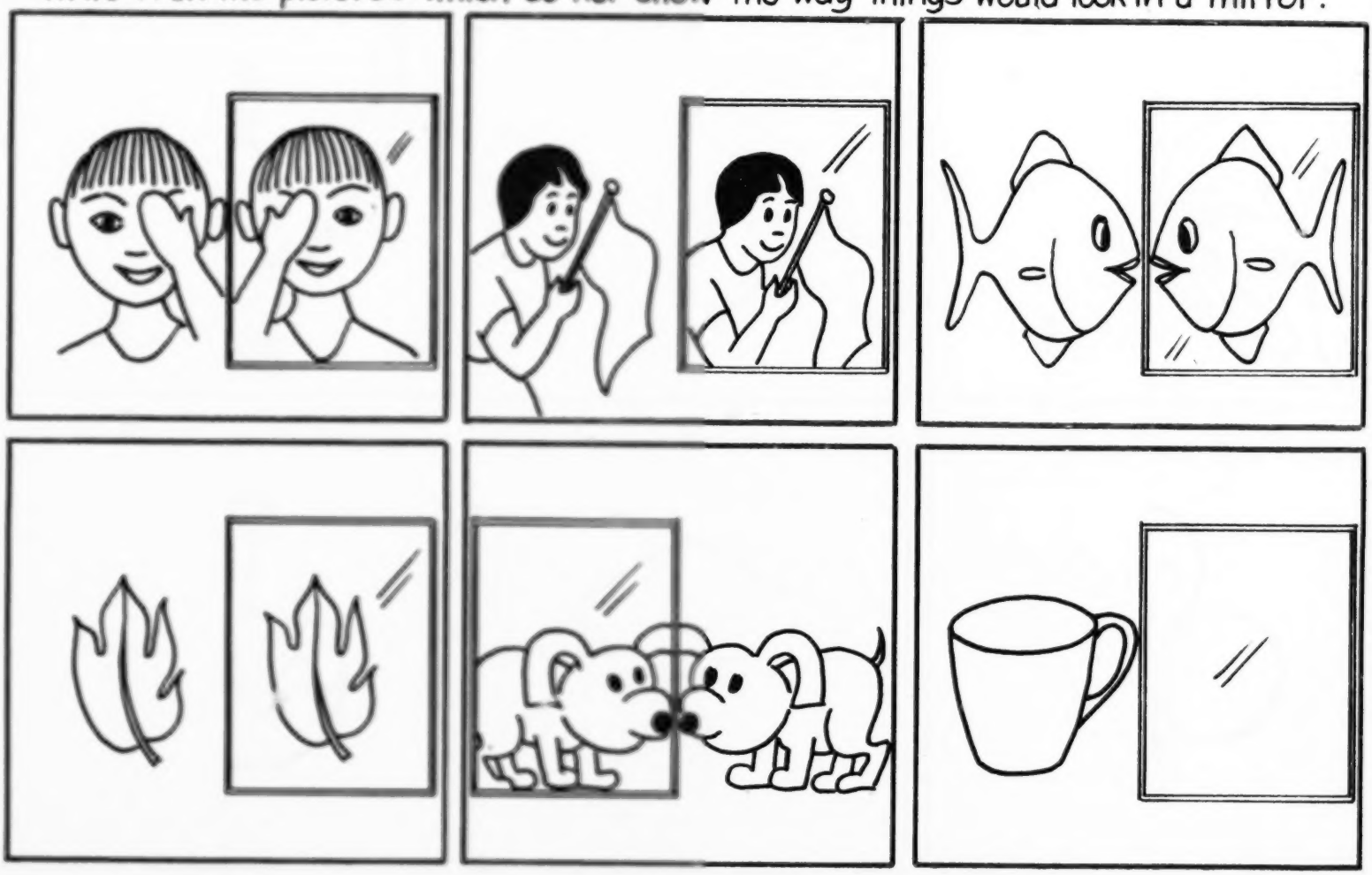




REFLECTIONS

To be used after completion of Card 69

Color the pictures which show the way things would look in a mirror.
Write X on the pictures which do not show the way things would look in a mirror.

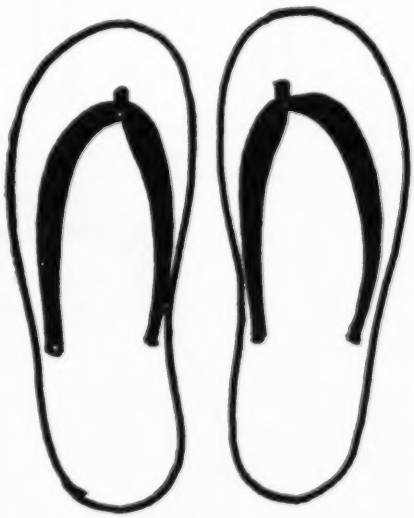


LEFT - RIGHT

to accompany Card 70

Place your hands on top of these hands.
Which is the left hand ? Which is the right hand ?
Draw a ring on the right hand.
Draw a watch on the left wrist.

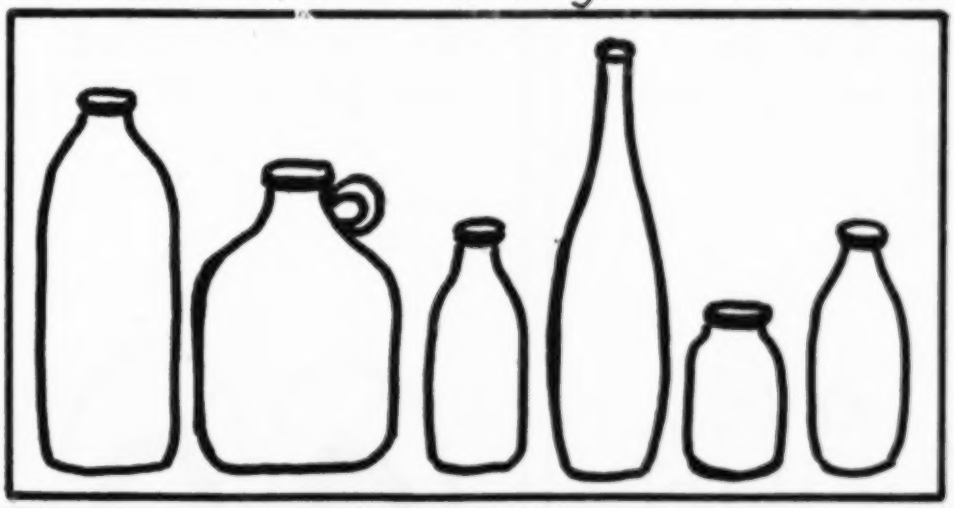
Color the left zori red.
Color the right zori blue.

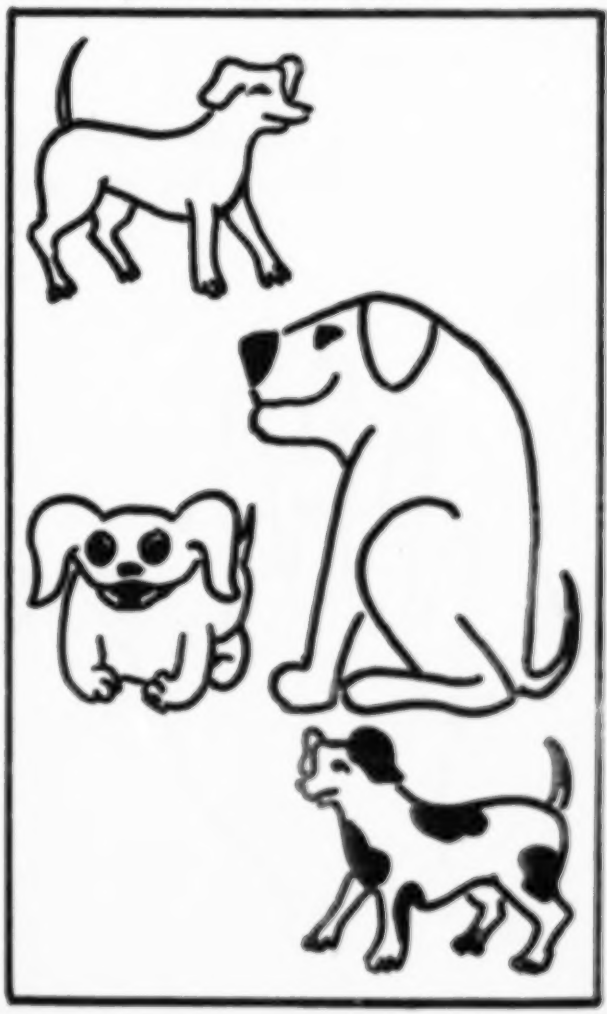


MATCHING SIZES

To be used with Card 71

In each set, color the things that are the same size, the same color.

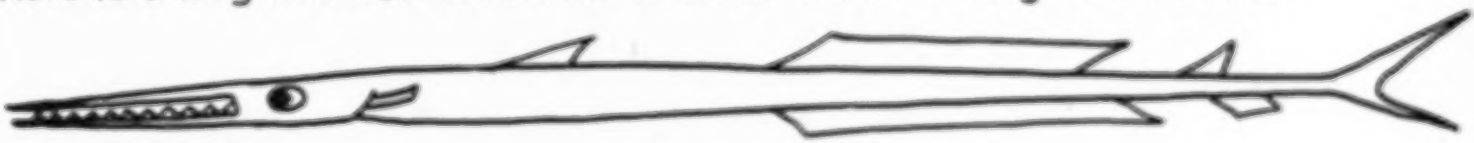




AS LONG AS

To be used after completion of Card 72

Here is a long needlefish. Draw another fish as long as this one.

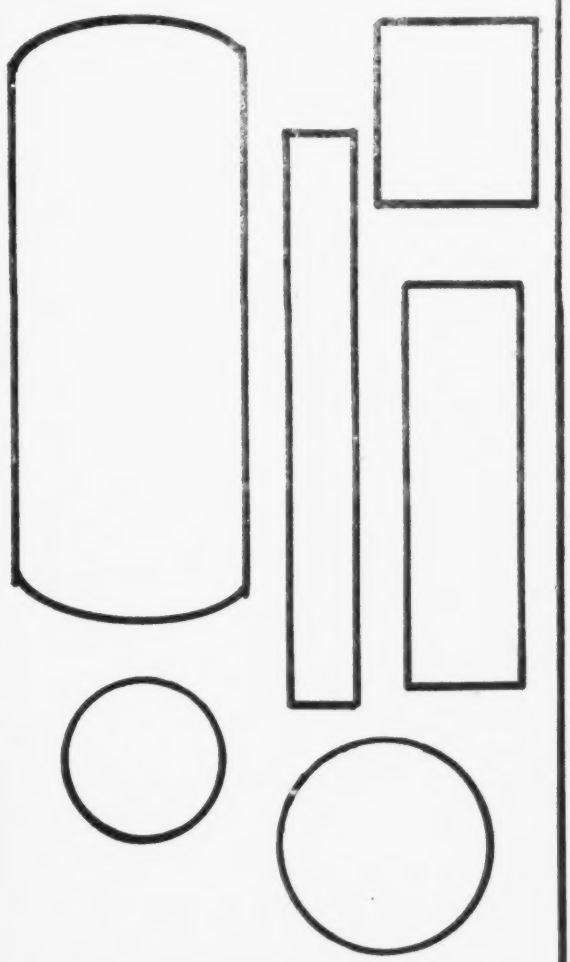


Here is a long belt. Draw another belt as long as this one

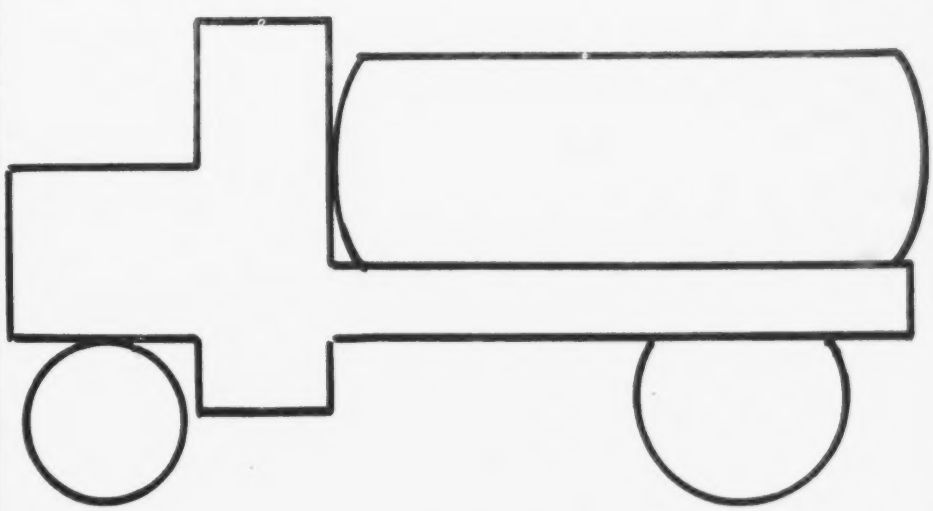
TANGRAMS

To accompany Card 73

Color these shape. Cut them out.



Paste them together to make this truck.

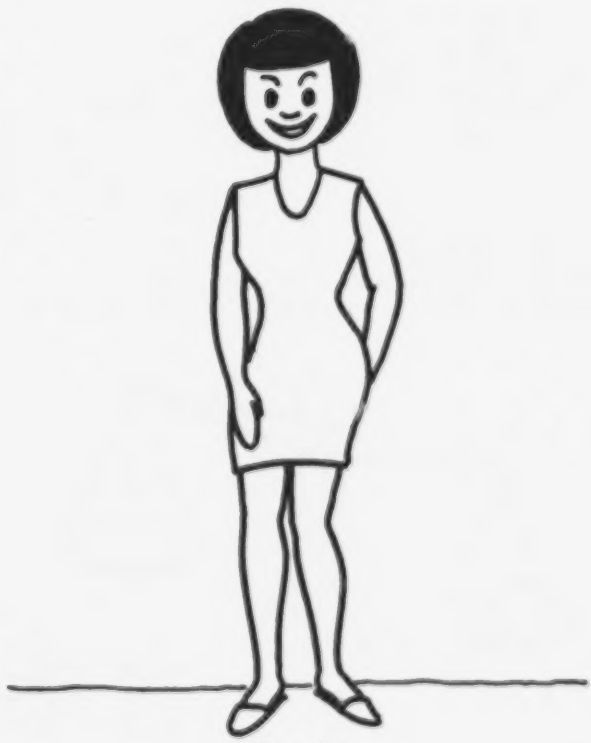


AS TALL AS

To be used after completion of Card 74-75

Draw a flagpole and flag as tall as the tree.

Draw a girl that is not as tall as Maria.
Draw a boy as tall as Maria.



Maria

AS HEAVY AS, NOT AS HEAVY AS To be used after completing Cards 76 & 77

Ring the object that belongs in each balance pan.

As heavy as

Not as heavy as

Not as heavy as

As heavy as

REFLECTIONS

To be used after completion of Card 78

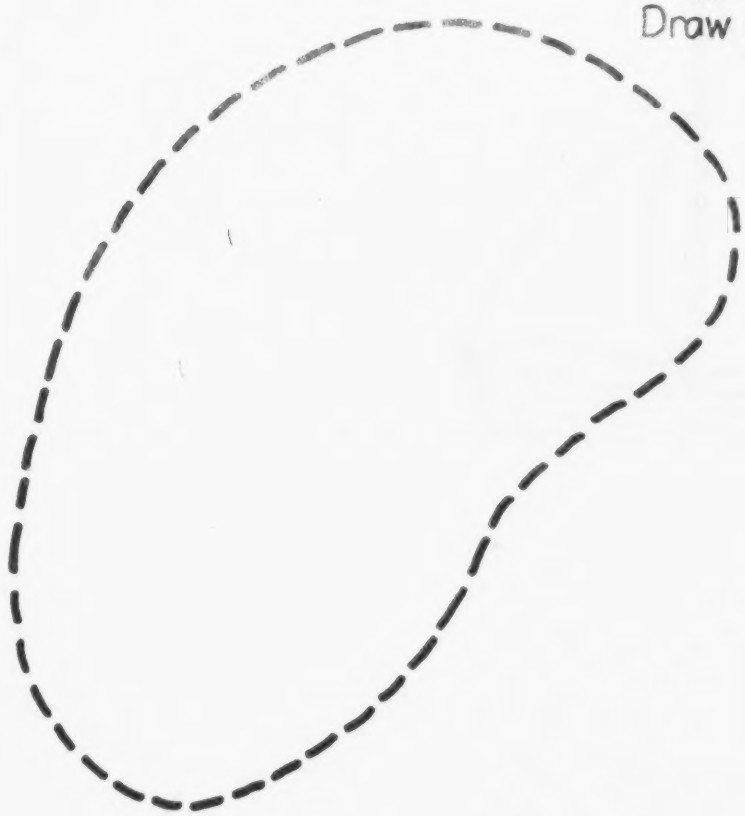
Draw the reflection of the boat in the water. Color the boat and its reflection.

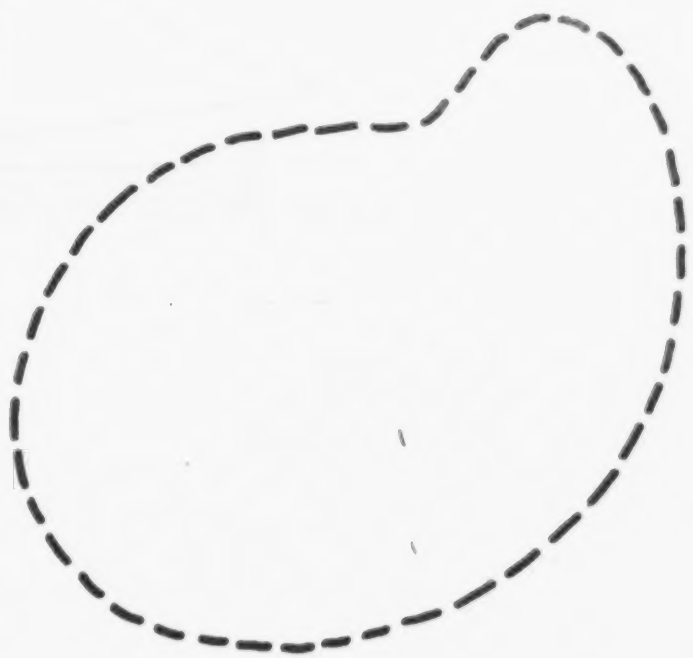
OUTSIDE

To be used with Card 79

Trace the boundaries.

Draw some flowers inside the boundaries.
Draw some trees outside the boundaries.



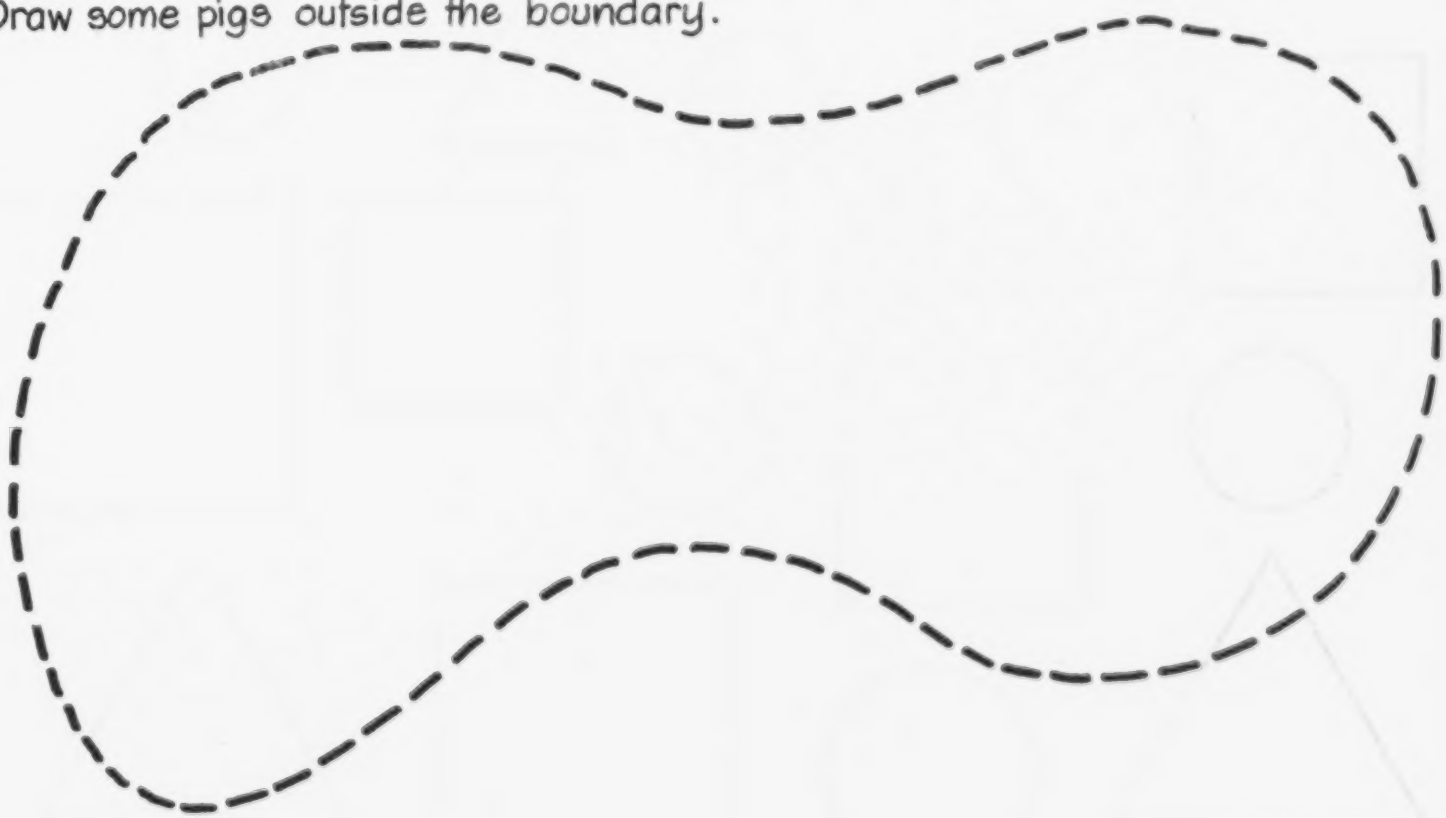


REGIONS, BOUNDARIES - INSIDE

To be used with Card 80

Trace the boundary. Write X on the boundary.

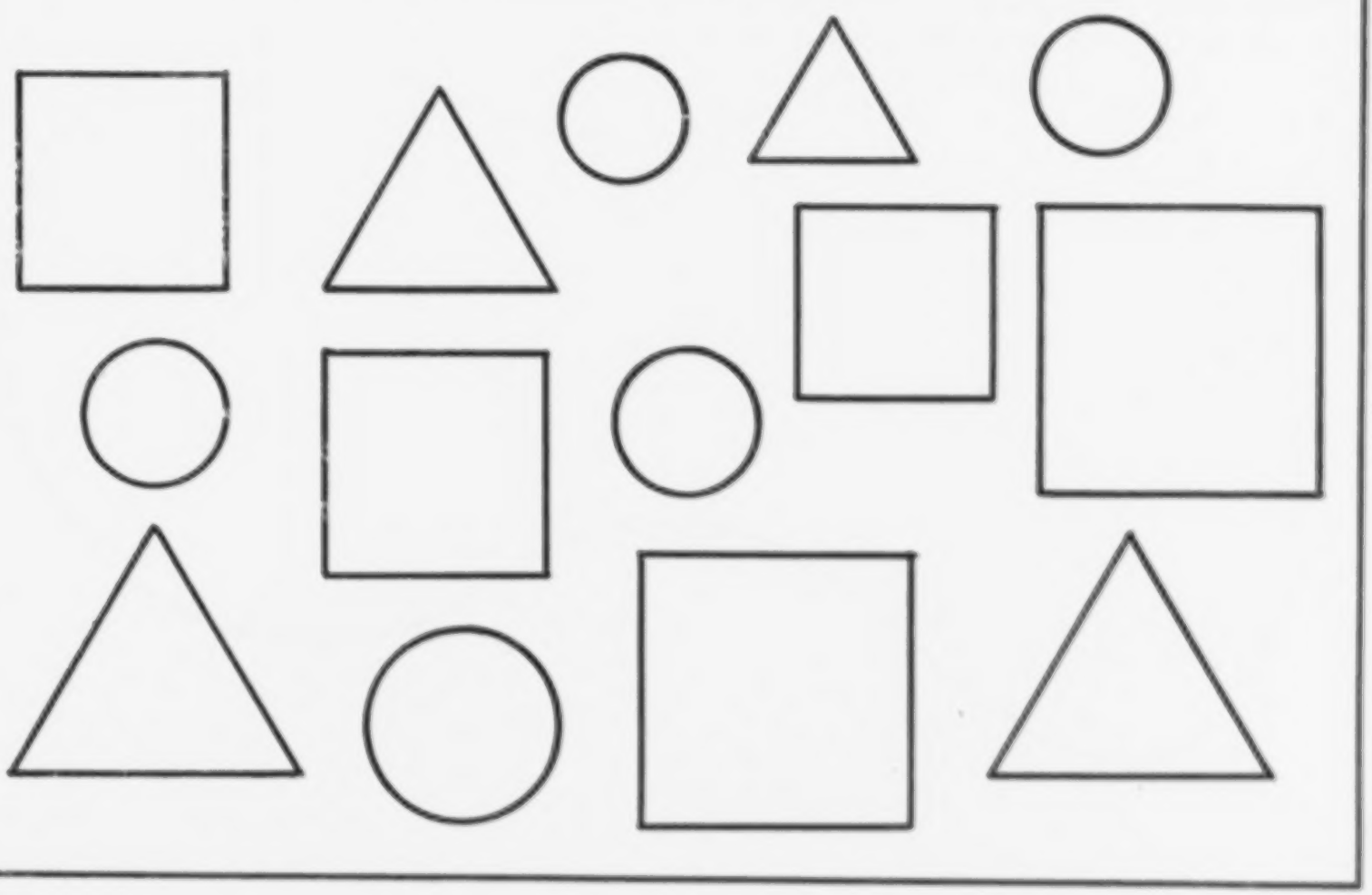
Draw some chicken inside the boundary.
Draw some pigs outside the boundary.



SORTING SHAPES

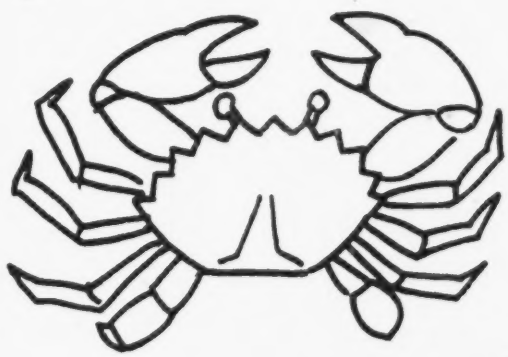
To be used with Card 81

Draw birds in the squares, houses in the circles and pigs in the triangles. Color them.



WRITING NUMERAL ONE - 1

1



one crab

Draw 1 thing that you can see on the beach.

1

Trace the numeral one. Follow the arrows.

Trace the numeral one. Follow the arrows

Write the numeral one. Begin at the dot.

Write the numeral one.

Write the numeral one.

WRITING ONE

Trace the word one. Start at the dots.

one one one

Trace the word one.

one one one

Write the word one.

Write the word one.

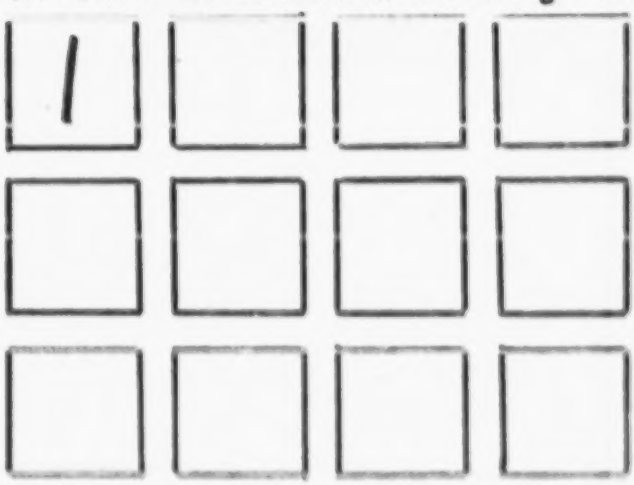
Ring the word one

ane ore one

1 one

Draw one house.

Write the numeral one in each square.



WRITING NUMERAL TWO - 2

2

two birds

Draw two things that you can see in the sky.

2

Trace the numeral two. Follow the arrows.

2 2 2 2 2

Trace the numeral two. Follow the arrows.

2 2 2 2 2

Write the numeral two. Begin at the dot.

Write the numeral two.

Write the numeral two.

WRITING TWO

2 two

Draw two trees.

Write the numeral two in each square.

2			

Trace the word two. Start at the dots.

two two two

Trace the word two.

two two two

Write the word two.

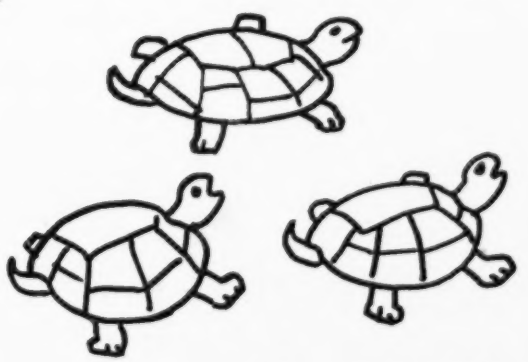
Write the word two.

Ring the word two.

lwo two twa

WRITING NUMERAL THREE - 3

3



three turtles

Draw 3 things that live in the sea.

3

Trace the numeral three. Follow the arrows.

3 3 3 3 3

Trace the numeral three. Follow the arrows.

3 3 3 3 3

Write the numeral three. Begin at the dot.

Write the numeral three.

Write the numeral three.

WRITING THREE

Trace the word three. Start at the dots.

three three

Trace the word three.

three three

Write the word three.

Write the word three.

Ring the word three.

three tree thee

3 three

Draw three birds.

Write the numeral three.

WRITING NUMERAL FOUR - 4

4

four eggs

Draw 4 things that you like to eat.

4

Trace the numeral four. Follow the arrows.

4 4 4 4 4

Trace the numeral four. Follow the arrows.

4 4 4 4 4

Write the numeral four. Begin at the dot.

4 4 4 4 4

Write the numeral four.

Write the numeral four.

WRITING FOUR

4 four

Draw four flowers.

Write the numeral four.

4

Trace the word four. Start at the dots.

four four four

Trace the word four.

four four four

Write the word four.

Write the word four.

Ring the word four.

fuor foun four

WRITING NUMERAL FIVE - 5

5

five leaves

Draw 5 things that grow on trees.

5

Trace the numeral five. Follow the arrows.

5 5 5 5 5

Trace the numeral five. Follow the arrows.

Write the numeral five. Begin at the dot.

Write the numeral five.

Write the numeral five.

WRITING FIVE

Trace the word five. Start at the dots.

five five five

Trace the word five.

five five five

Write the word five.

Write the word five.

Ring the word five.

four fibe five

5 five

Draw five leaves.

Write the numeral five.

WRITING NUMERAL SIX - 6

6

six star fish

Draw 6 things that you can play with.

6

Trace the numeral six. Follow the arrows.

Trace the numeral six. Follow the arrows.

Write the numeral six. Begin at the dots.

Write the numeral six.

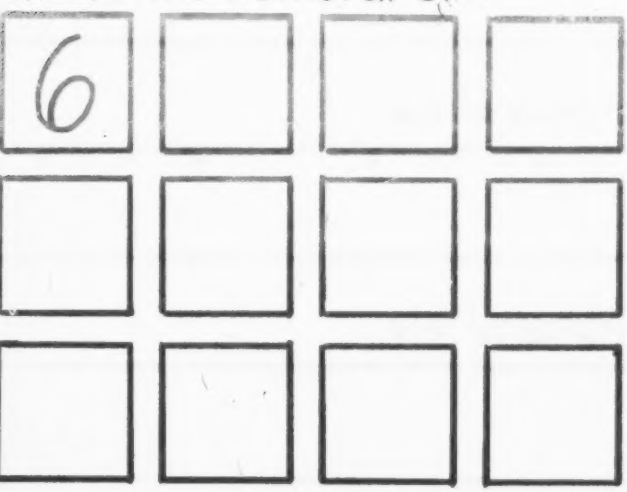
Write the numeral six.

WRITING SIX

6 six

Draw six squares.

Write the numeral six.



Trace the word six. Start at the dots.

six six six

Trace the word six.

six six six

Write the word six.

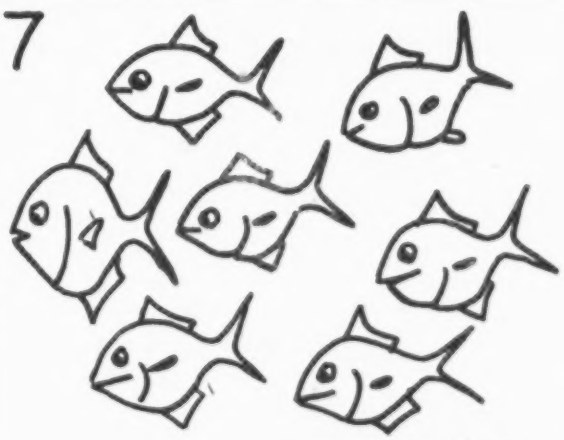
Write the word six.

Ring the word six.

sox sax six

WRITING NUMERAL SEVEN - 7

7



seven fishes

Draw 7 things that you can find at home.

7

Trace the numeral seven. Follow the arrows.

Trace the numeral seven. Follow the arrows.

Write the numeral seven. Begin at the dot.

Write the numeral seven.

Write the numeral seven.

WRITING SEVEN

Trace the word seven. Start at the dots.

seven seven

Trace the word seven.

seven seven

Write the word seven.

Write the word seven.

Ring the word seven.

sever seven sevin

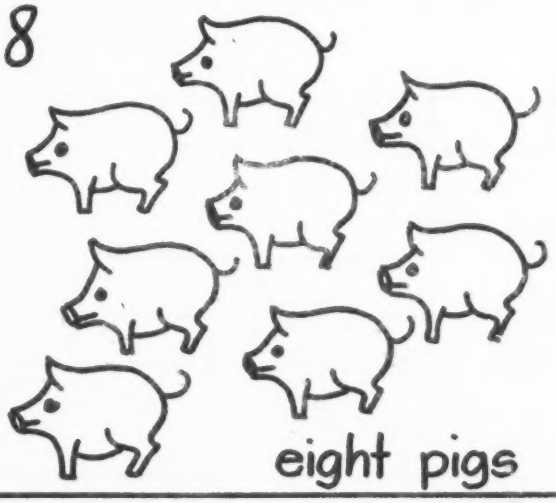
7 seven

Draw seven stars.

Write the numeral seven.

WRITING NUMERAL EIGHT - 8

8



eight pigs

Draw 8 things that you have in school.

8

Trace the numeral eight. Follow the arrows.

8 8 8 8 8

Trace the numeral eight. Follow the arrows.

8 8 8 8 8

Write the numeral eight. Begin at the dot.

Write the numeral eight.

Write the numeral eight.

WRITING EIGHT

8 eight

Draw eight hats.

Write the numeral 8.

8

Trace the word eight. Start at the dots.

eight eight

Trace the word eight.

eight eight

Write the word eight.

Write the word eight.

Ring the word eight.

eijht eigth eight

WRITING NUMERAL NINE – 9

9

nine chicks

Draw 9 things you can find at the store.

9

Trace the numeral nine . Follow the arrows.

9 9 9 9 9

Trace the numeral nine. Follow the arrows

9 9 9 9 9

Write the numeral nine. Begin at the dot.

Write the numeral nine.

Write the numeral nine.

WRITING NINE

Trace the word nine. Start at the dots.

nine nine nine

Trace the word nine.

nine nine nine

Write the word nine.

Write the word nine.

Ring the word nine.

neni	nire	nine

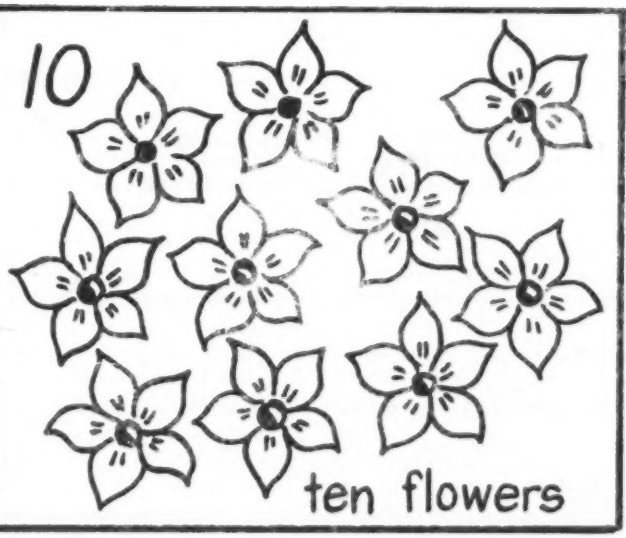
9 nine

Draw nine nails.

Write the numeral nine

9			

WRITING TEN - 10



Draw 10 things that you know the English word for.

10

Trace ten. Follow the arrows.

10 10 10 10 10

Trace ten. Follow the arrows.

10 10 10 10 10

Write ten. Begin at the dots.

Write ten.

Write ten.

WRITING TEN

10 ten

Draw ten triangles

Write ten

10			

Trace ten. Start at the dots.

ten ten ten

Trace the word ten.

ten ten ten

Write the word ten.

Write the word ten.

Ring the word ten.

tin ten ter

WRITING ZERO

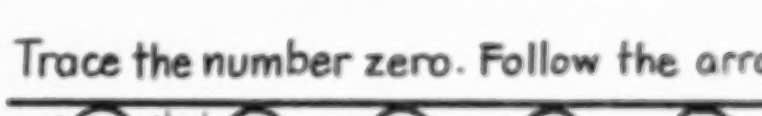
0

zero

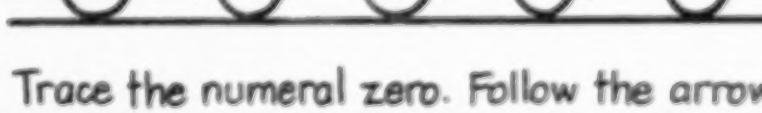
Draw a container that is empty.

0

Trace the number zero. Follow the arrows.



Trace the numeral zero. Follow the arrows.



Write the numeral zero. Begin at the dot.

Write the numeral zero.

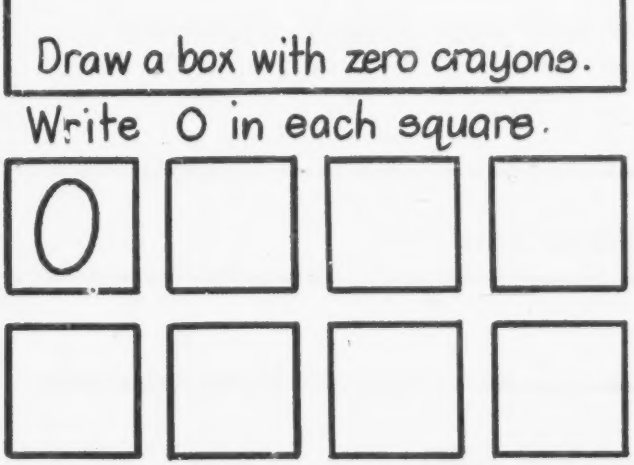
Write the numeral zero.

WRITING ZERO

0 zero

Draw a box with zero crayons.

Write 0 in each square.



Trace the word zero. Start at the dots.

zero zero zero

Trace the word zero.

zero zero zero

Write the word zero.

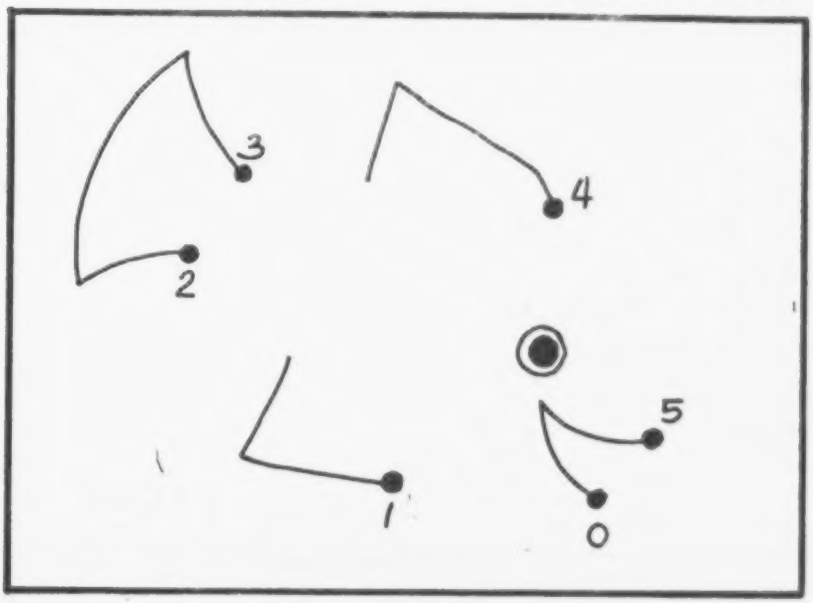
Write the word zero.

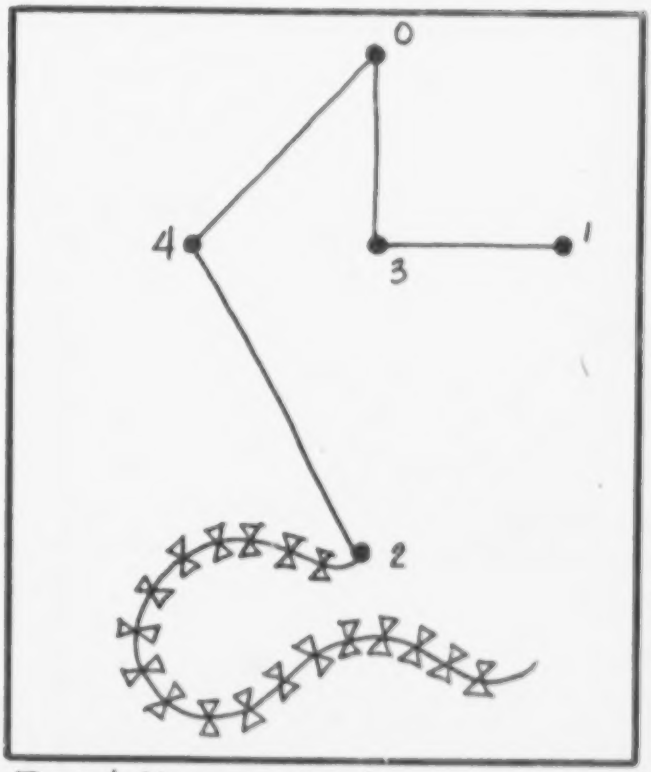
Ring the word zero.

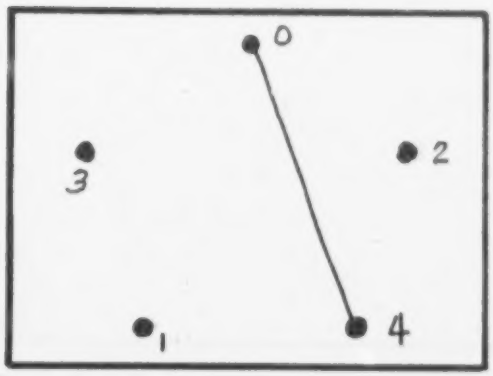
ziro zero zeno

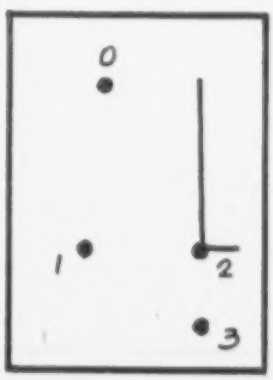
NUMBER SEQUENCE - 0 to 5

Connect the dots in numerical order. Color the pictures.







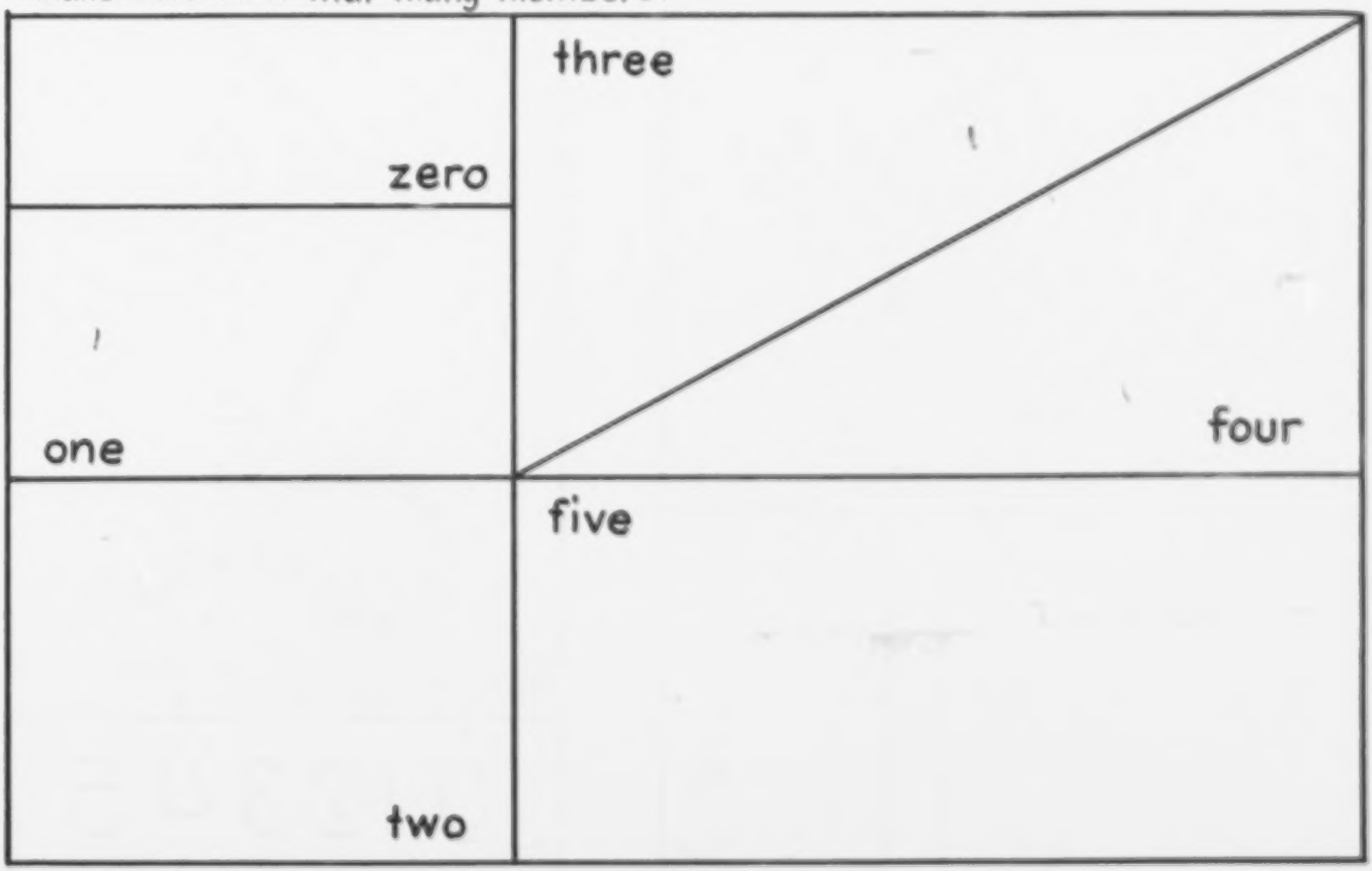


Read these numbers.

0 1 2 3 4 5

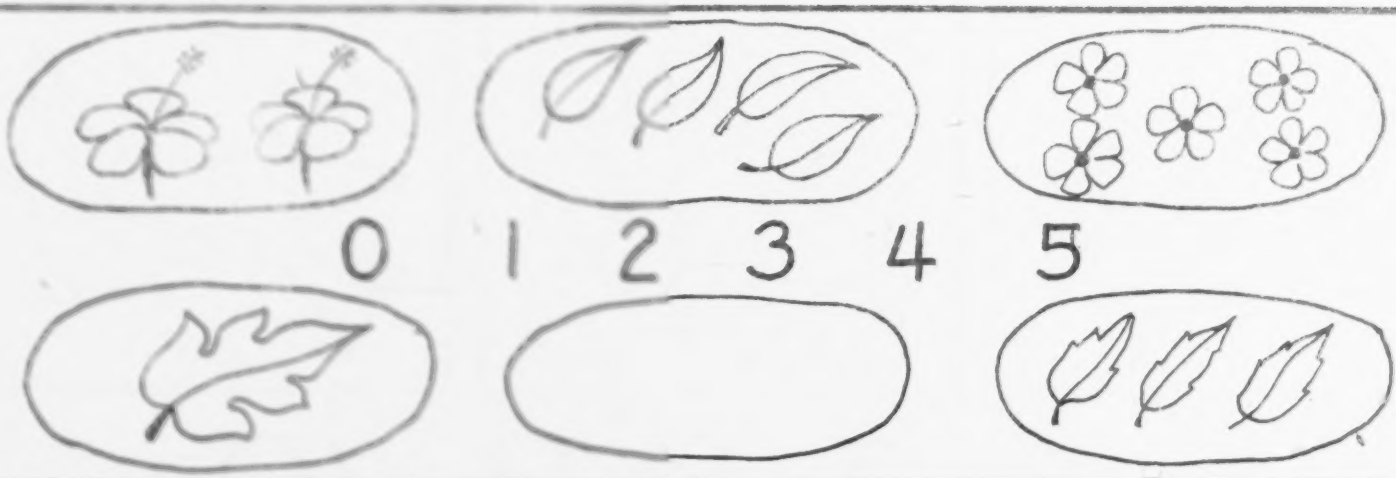
NUMBERS ZERO TO FIVE

Read the number words. Write the numerals next to the words.
Make sets with that many members.



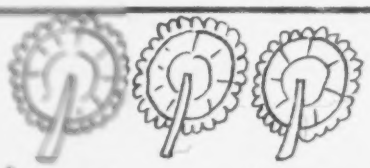
NUMBERS ZERO TO FIVE

Draw a line from the numeral to the set.

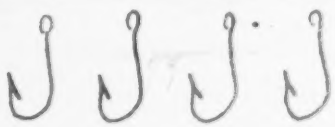


Ring the correct word.

zero one

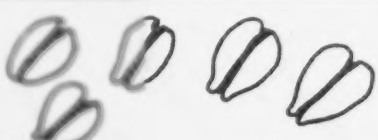


three two



five four

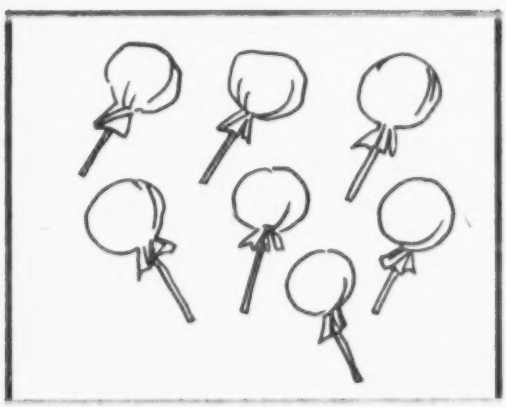
two one

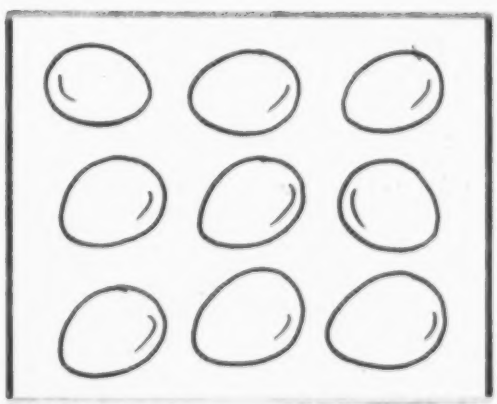


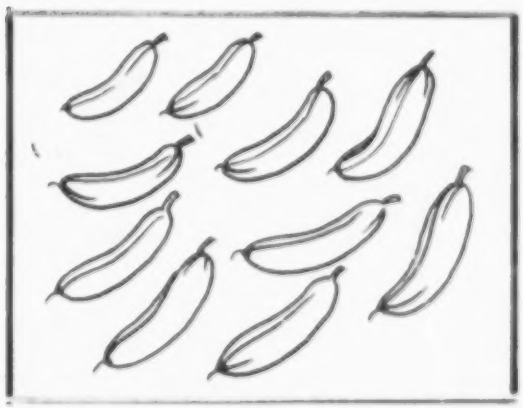
three five

zero four

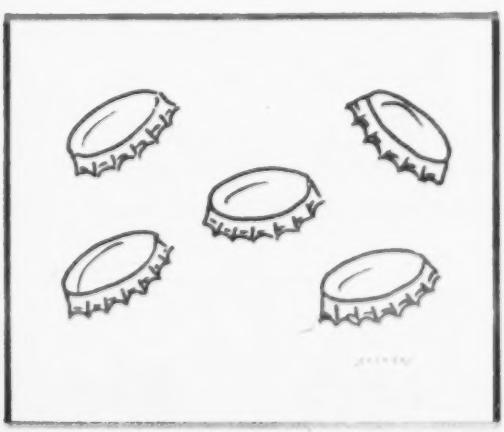
NUMBERS 5 to 10

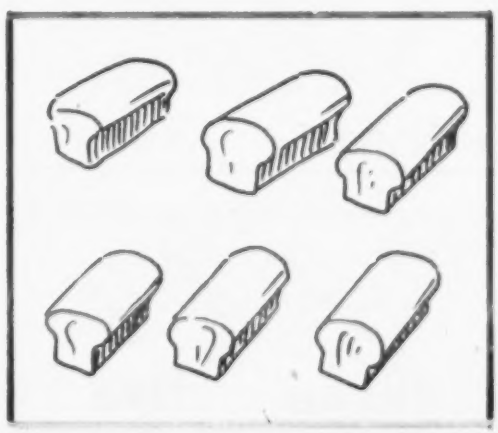


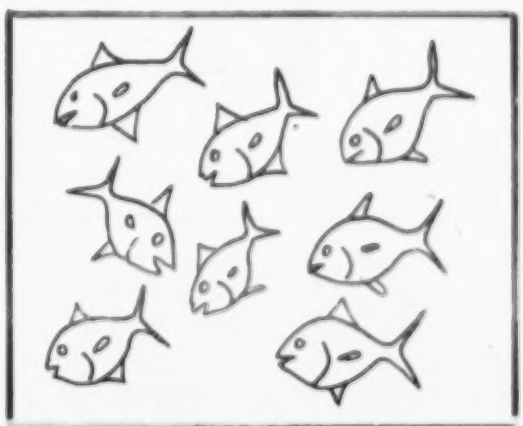




5 6 7 8 9 10







NUMBERS SIX TO TEN

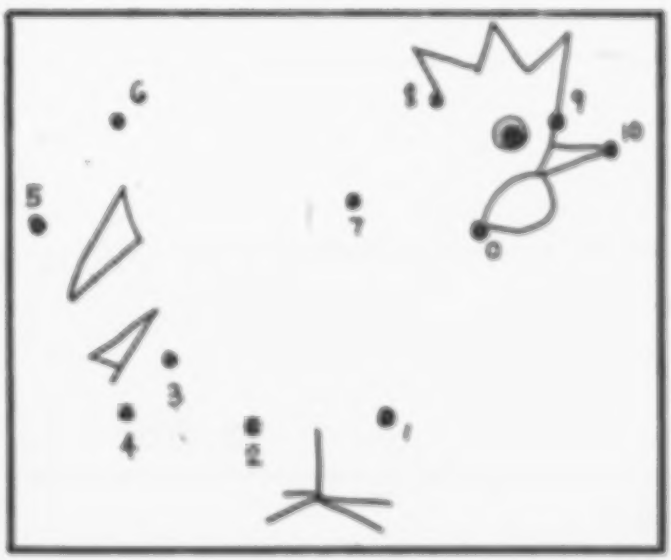
Read the number word. Write the correct numeral next to it.
Make sets with that many members.

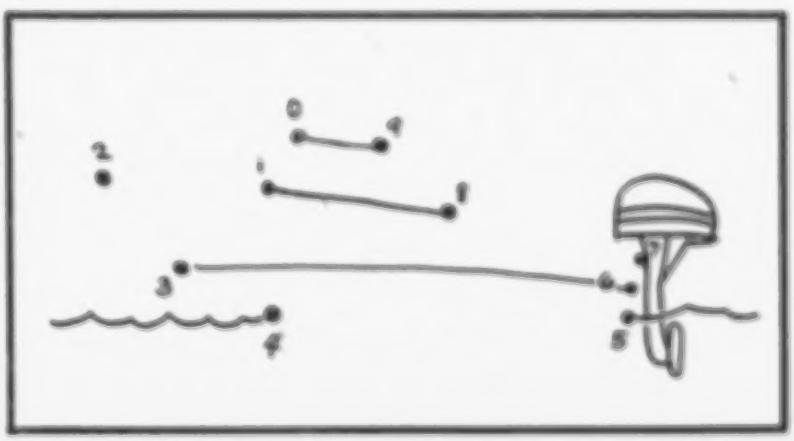
six	seven
	eight
nine	ten

NUMBER SEQUENCE - 0 to 10

Read these numbers in order.

0 1 2 3 4 5
6 7 8 9 10

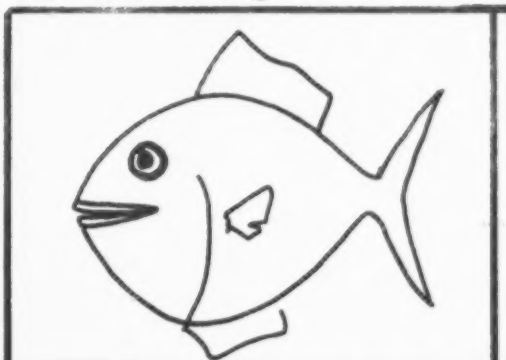


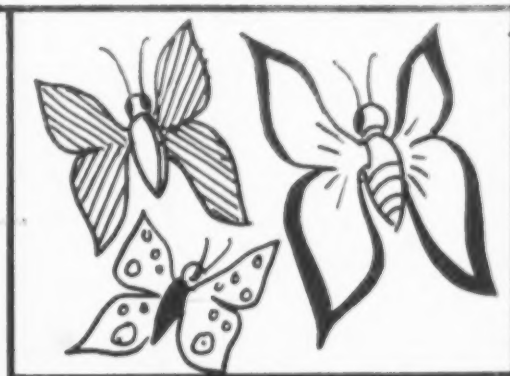


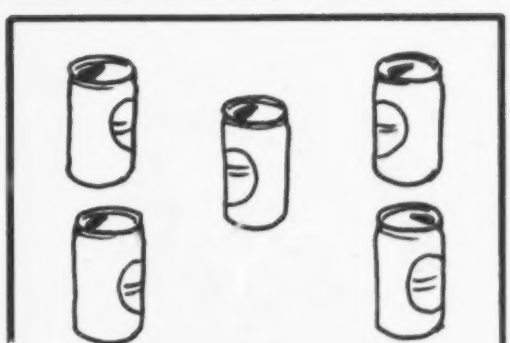
REVIEW NUMERALS 1 to 5

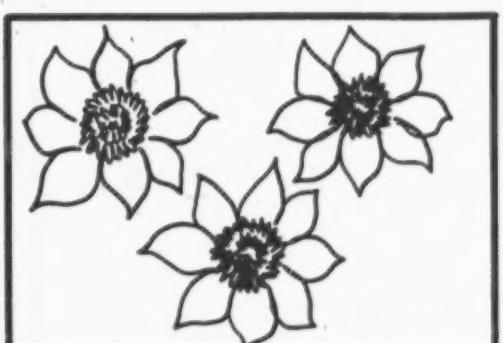
Write the correct numeral below the set.
The first one has been started for you.

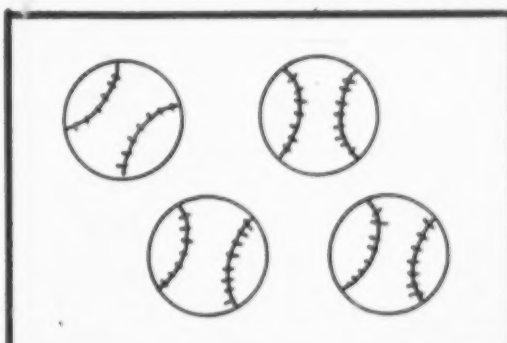
4





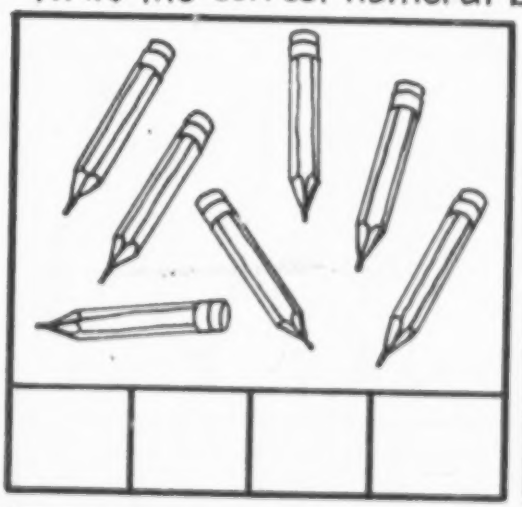


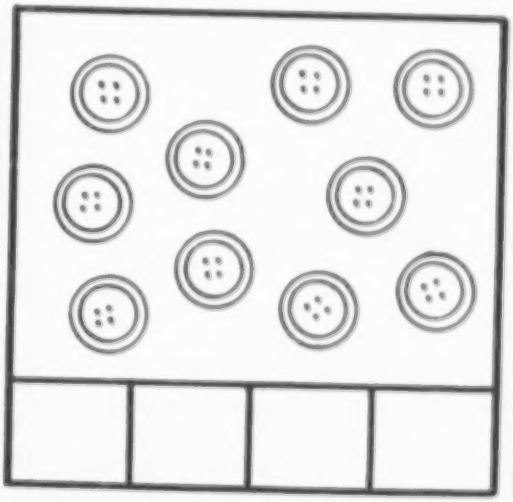


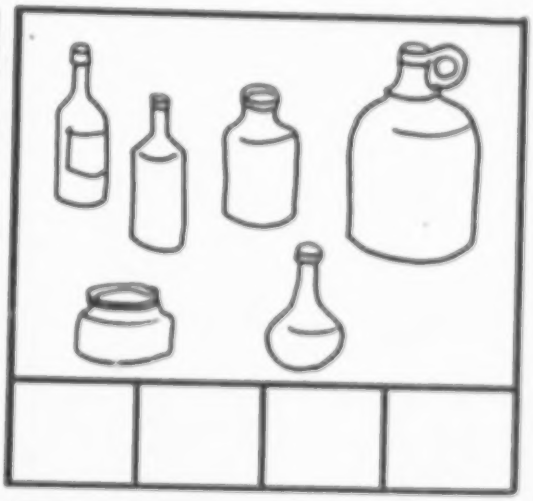


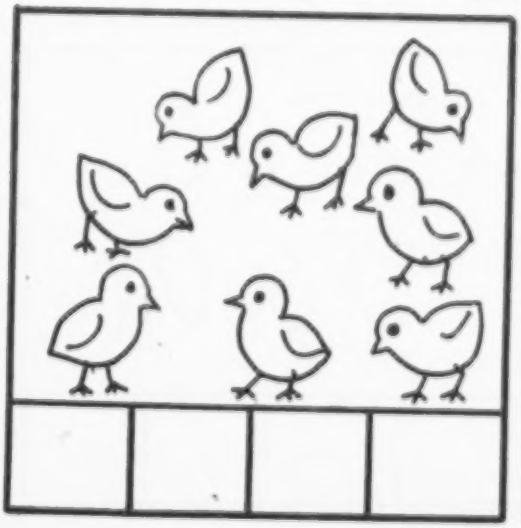
NUMERALS 6 to 10

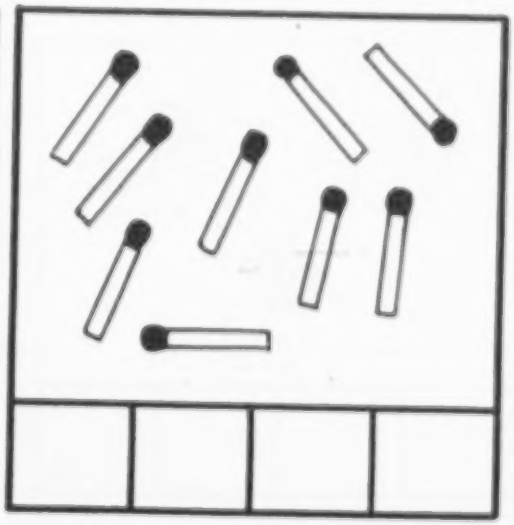
Write the correct numeral below the set.

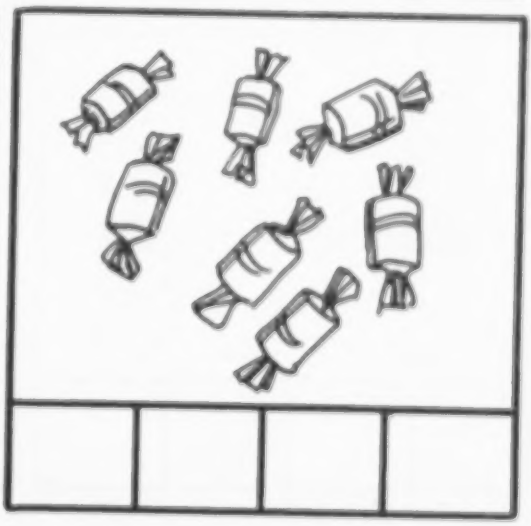












NUMERALS 1 to 9

1												
2												
3												
4												
5												
6												
7												
8												
9												